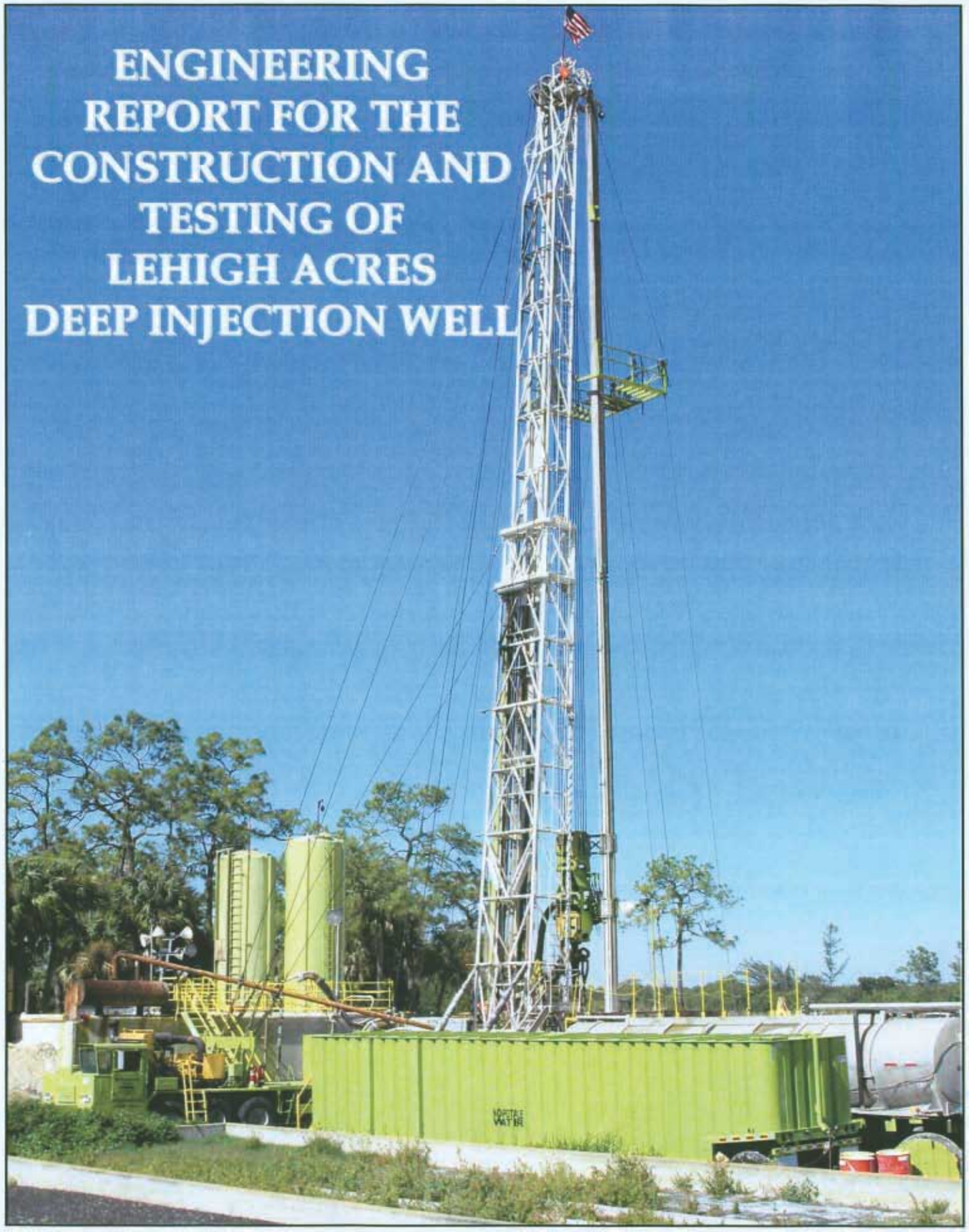
# ENGINEERING REPORT FOR THE CONSTRUCTION AND TESTING OF LEHIGH ACRES DEEP INJECTION WELL



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
CLASS I INJECTION WELL

TEST WELL CONSTRUCTION PERMIT

No. 48064-078-UC

Appendix P
Volume 4

PREPARED FOR

FLORIDA GOVERNMENT UTILITY AUTHORITY
LEHIGH ACRES, FLORIDA

PREPARED BY

PBS&J

5300 West Cypress Street
Tampa, Fl 33607

JUNE 2008

# APPENDIX P

Geophysical Logs

UZMW-1

YOUNGQUIST BROTHERS, Inc.

Company FGUA
Well UPPER ZONE MW-1
Field 1/2 MILE ACRES W.T.P.
County LEE
State FLORIDA

X,Y,CALIPER
GAMMA RAY
LOG

Other Services: NONE

Permanent Datum: GROUND LEVEL
Log Measured From: GROUND LEVEL
Drilling Measured From: GROUND LEVEL

Elevation: Elev. K.B.: Elev. D.F.: Elev. G.L.:

Date: 03-28-2008
Run Number: ONE
Depth Driller: 1800
Depth Logger: 1800
Bottom Logged Interval: 1800
Top Logged Interval: SURFACE
Casing Driller Size at Depth: 8" @ 0
Casing Logger Size at Depth: 8" @ 0
Bit Size: 6.125
Type Fluid in Hole: WATER
Density: NA
Viscosity: NA
Max. Rec. Temp. Deg. F: 80
Estimated Cement Top: NA
Time Logger on Bottom: 1200
Unit Number: 3
Witnessed By: GORDON GOODRAMER / STEVE RUTHERFORD

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, and all of the rest of us who engage in our work, 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 forth in our current price schedule.

DATA#0

BOREHOLE VOLUMES IN BARRELS

YOUNGQUIST BROTHERS, Inc.
WATER WELL CONSULTANTS

# MAIN PASS

Database File: lehtoms.db
Output Format: gxwin
Depth Scale: 1:500
Date/Time: 03-28-08/04:13:20PM
Depth to First sample: 1000
Charted by: 2

GAMMA RAY (CAPS) 100 — X-CALIPER (in) 30 — Y-CALIPER (in) 30 — BIT SIZE (in) 30

Spinning Rate — Y-Caliper — X-Caliper — Bit Size

YOUNGQUIST BROTHERS, Inc.
WATER WELL CONSULTANTS

# MAIN PASS

Database File: lehtoms.db
Output Format: gxwin
Depth Scale: 1:500
Date/Time: 03-28-08/04:13:20PM
Depth to First sample: 1000
Charted by: 2

GAMMA RAY (CAPS) 100 — X-CALIPER (in) 30 — Y-CALIPER (in) 30 — BIT SIZE (in) 30

Spinning Rate — Y-Caliper — X-Caliper — Bit Size

YOUNGQUIST BROTHERS, Inc.
WATER WELL CONSULTANTS

# MAIN PASS

Database File: lehtoms.db
Output Format: gxwin
Depth Scale: 1:500
Date/Time: 03-28-08/04:13:20PM
Depth to First sample: 1000
Charted by: 2

GAMMA RAY (CAPS) 100 — X-CALIPER (in) 30 — Y-CALIPER (in) 30 — BIT SIZE (in) 30

Spinning Rate — Y-Caliper — X-Caliper — Bit Size

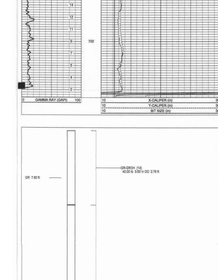
YOUNGQUIST BROTHERS, Inc.
WATER WELL CONSULTANTS

# REPEAT PASS

Database File: lehtoms.db
Output Format: gxwin
Depth Scale: 1:500
Date/Time: 03-28-08/08:40:20PM
Depth to First sample: 1000
Charted by: 2

GAMMA RAY (CAPS) 100 — X-CALIPER (in) 30 — Y-CALIPER (in) 30 — BIT SIZE (in) 30

Spinning Rate — Y-Caliper — X-Caliper — Bit Size




Detail: 1 inch=5 feet
Total Depth: 1800 ft
Total Weight: 127.00 lb
O.D. 2.50 in

XY Caliper Calibration Report

Serial Number/Model: 00004-01/1DM
Performed: Tue Jun 05 08:14:28 2007

| Ring | A Caliper | Y Caliper |
|---|---|---|
| 1 | 0.00 in | 0.00 in | 202.958 | 32K | 200.303 | 32K |
| 2 | 10.00 in | 10.00 in | 403.125 | 32K | 401.125 | 32K |
| 3 | 40.00 in | 40.00 in | 818.177 | 32K | 771.272 | 32K |
| 4 | in | in | | 32K | | 32K |
| 5 | in | in | | 32K | | 32K |
| 6 | in | in | | 32K | | 32K |

Calibration Value: 100 DAR

Background Reading: 85.4459 32K
Calibration Reading: 204.000 32K

Sensitivity: 0.154457 DAR/bit

Gamma Ray Calibration Report

Serial Number: 00
Date Made: 00/00/00
Performed: Tue Feb 27 13:17:01 2007

Calibration Value: 100 DAR

Background Reading: 85.4459 32K
Calibration Reading: 204.000 32K

Sensitivity: 0.154457 DAR/bit

Company FOUR
Well UPPER ZONE MW-1
Field LOWER ACRES M.T.P.
County LEE
State FLORIDA

Company FOUR
Well UPPER ZONE MW-1
Field LOWER ACRES M.T.P.
County LEE
State FLORIDA

FLORIDA GOVERNMENT CERTIFICATION NUMBER
Date
Time
Operator
Witness

YOUNGQUIST BROTHERS, Inc.
Specialists in Geophysical Logging

DUAL INDUCTION
LL3 LL8 SP
LDL


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 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.


CONFIDENTIAL

YOUNGQUIST BROTHERS, Inc.
Specialists in Geophysical Logging

# MAIN PASS

Datafiles File: lanfacns.db
Dataset Pathname: gamma
Interpretation Format: gr
Depth Scale Factor: 1:1200
Created: Tue Jun 05 08:56:00 2007 by Log 6.2_B4
Depth in Feet scaled 1:1200

| | | | |
|---|---|---|---|
| 0 | Gamma Ray (GAPI) 100 | 0.2 | Deep Resistivity (Ohm-m) 2000 |
| | 100 Spontaneous Potential (mV) 100 | 0.2 | Medium Resistivity (Ohm-m) 2000 |
| | | 0.2 | Shallow Resistivity (Ohm-m) 2000 |

Deep Induction Resistivity
Medium Induction Resistivity
Shallow Resistivity
Spontaneous Potential

YOUNGQUIST BROTHERS, Inc.
Specialists in Geophysical Logging

# MAIN PASS

Datafiles File: lanfacns.db
Dataset Pathname: gamma
Interpretation Format: gr
Depth Scale Factor: 1:1200
Created: Tue Jun 05 08:56:00 2007 by Log 6.2_B4
Depth in Feet scaled 1:1200

| | | | |
|---|---|---|---|
| 0 | Gamma Ray (GAPI) 100 | 0.2 | Deep Resistivity (Ohm-m) 2000 |
| | 100 Spontaneous Potential (mV) 100 | 0.2 | Medium Resistivity (Ohm-m) 2000 |
| | | 0.2 | Shallow Resistivity (Ohm-m) 2000 |

Deep Induction Resistivity
Medium Induction Resistivity
Shallow Resistivity
Spontaneous Potential

YOUNGQUIST BROTHERS, Inc.
Specialists in Geophysical Logging

# MAIN PASS

Datafiles File: lanfacns.db
Dataset Pathname: gamma
Interpretation Format: gr
Depth Scale Factor: 1:1200
Created: Tue Jun 05 08:56:00 2007 by Log 6.2_B4
Charted by: Depth in Feet scaled 1:240

| | | | |
|---|---|---|---|
| 0 | Gamma Ray (GAPI) 100 | 0.2 | Deep Resistivity (Ohm-m) 2000 |
| | 100 Spontaneous Potential (mV) 100 | 0.2 | Medium Resistivity (Ohm-m) 2000 |
| | | 0.2 | Shallow Resistivity (Ohm-m) 2000 |

Deep Induction Resistivity
Medium Induction Resistivity
Shallow Resistivity
Spontaneous Potential

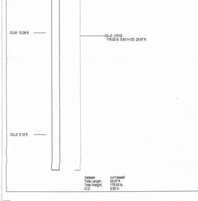
YOUNGQUIST BROTHERS, Inc.
Specialists in Geophysical Logging

# REPEAT PASS

Datafiles File: lanfacns.db
Dataset Pathname: gamma
Interpretation Format: gr
Depth Scale Factor: 1:1200
Created: Tue Jun 05 08:56:00 2007 by Log 6.2_B4
Charted by: Depth in Feet scaled 1:240

| | | | |
|---|---|---|---|
| 0 | Gamma Ray (GAPI) 100 | 0.2 | Deep Resistivity (Ohm-m) 2000 |
| | 100 Spontaneous Potential (mV) 100 | 0.2 | Medium Resistivity (Ohm-m) 2000 |
| | | 0.2 | Shallow Resistivity (Ohm-m) 2000 |

Deep Induction Resistivity
Medium Induction Resistivity
Shallow Resistivity
Spontaneous Potential




Dataset: lp120gdrf
Tool Length: 15.00 ft
Tool Weight: 150 lbs
Date: 11/13/06
S/N: 0

Dual Induction Calibration Report

Serial Model:
Surface Cal Performed at:
Downhole Cal Performed:
After Survey Verification Performed:

Date: 11/13/07
Surface Cal Performed at: Tue Jun 05 08:57:00 2007
Downhole Cal Performed: Tue Jun 05 08:57:00 2007
After Survey Verification Performed: Tue Jun 05 08:57:00 2007

Surface Calibration

| | Readings Loop | Air | Loop | Air | References Loop | Air | Loop | Air | Results m | b |
|---|---|---|---|---|---|---|---|---|---|---|
| Deep | 2.005 | 0.047 | V | | 0.000 | 400.000 | mmho-m | | 812.006 | 0.561 |
| Medium | 2.005 | 0.047 | V | | 0.000 | 400.000 | mmho-m | | 806.800 | -0.001 |
| Internal: | Zero | Cal | | | Zero | Cal | | | m | b |
| Deep | 0.000 | 0.941 | V | | 0.000 | 387.000 | mmho-m | | 809.972 | 0.279 |
| Medium | 0.000 | 0.710 | V | | 0.000 | 400.000 | mmho-m | | 806.800 | 0.279 |

Downhole Calibration

| Internal: | Readings Zero | Cal | | | References Zero | Cal | | | Results m | b |
|---|---|---|---|---|---|---|---|---|---|---|
| Deep | 0.000 | 400.000 | mmho-m | | 0.000 | 387.000 | mmho-m | | 0.000 | 1.000 |
| Medium | 0.000 | 400.000 | mmho-m | | 0.000 | 400.000 | mmho-m | | 0.000 | 1.000 |
| Shallow | 0.000 | 0.000 | mmho-m | | 0.000 | 0.000 | mmho-m | | 0.000 | 0.000 |

After Survey Verification

| | Readings Zero | Cal | | | Targets Zero | Cal | | | m | b |
|---|---|---|---|---|---|---|---|---|---|---|
| Deep | 0.750 | 401.000 | mmho-m | | 0.000 | 387.000 | mmho-m | | 0.000 | 0.000 |
| Medium | 0.750 | 401.000 | mmho-m | | 0.000 | 400.000 | mmho-m | | 0.000 | 0.000 |
| Shallow | 0.000 | 99.700 | mmho-m | | 0.000 | 99.000 | mmho-m | | 0.000 | -0.000 |

YOUNGQUIST BROTHERS, Inc.
www.ybi.com, (888) 9-YBI-LOG

Company: Operator: BORDER ENERGY COMPANY, LLC
Field: Field: WILDCAT
Well: Well: EPPER-ZONE WM-1
Date: Date: 11-Dec-2008
Time: Time: 12:00 AM
Depth: Depth: 1,000 - 1,800 ft
Elevation: Elevation: 3,000 ft
Location: Location: 1,320 FSL 1,320 FEL 1-T1S-R2E
County: County: CONNECTICUT
State: State: CONNECTICUT
Country: Country: USA
Comments: Comments: EPPER-ZONE WM-1 1,320 FSL 1,320 FEL 1-T1S-R2E CONNECTICUT, CONNECTICUT, USA

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Contents

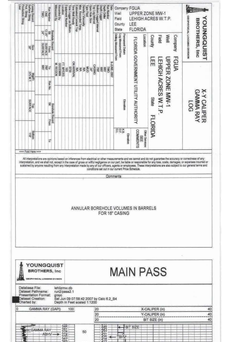

MAIN PASS
MAIN PASS
MAIN PASS
MAIN PASS
REPEAT PASS

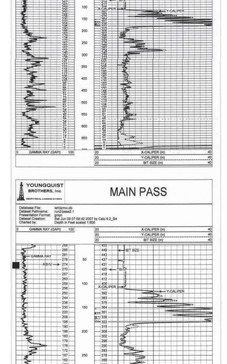

YOUNGQUIST BROTHERS, Inc.
www.ybi.com, (888) 9-YBI-LOG

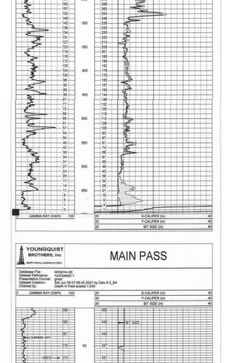
## MAIN PASS

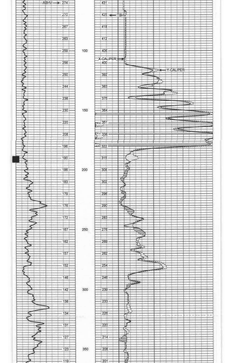
Company: Operator: BORDER ENERGY COMPANY, LLC
Field: Field: WILDCAT
Well: Well: EPPER-ZONE WM-1
Date: Date: 11-Dec-2008
Time: Time: 12:00 AM
Depth: Depth: 1,000 - 1,800 ft
Elevation: Elevation: 3,000 ft
Location: Location: 1,320 FSL 1,320 FEL 1-T1S-R2E
County: County: CONNECTICUT
State: State: CONNECTICUT
Country: Country: USA
Comments: Comments: EPPER-ZONE WM-1 1,320 FSL 1,320 FEL 1-T1S-R2E CONNECTICUT, CONNECTICUT, USA

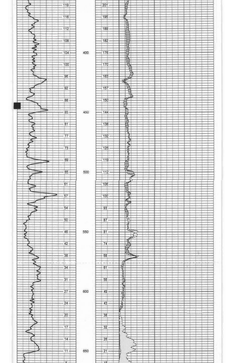
GAMMA RAY (API) 0 | 100 | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000
0 GAMMA RAY 100
BOREHOLE CALIPER (INCHES) 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 | 26
6 BOREHOLE CALIPER 26
BOREHOLE CALIPER (INCHES) 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 | 26
6 BOREHOLE CALIPER 26
BONE POROSITY (ZTNAV) (% dol) 100 | 80 | 60 | 40 | 20 | 0 | -20 | -40 | -60 | -80 | -100
100 BONE POROSITY (ZTNAV) -100

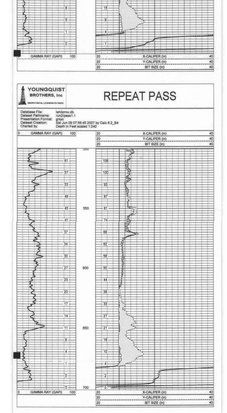


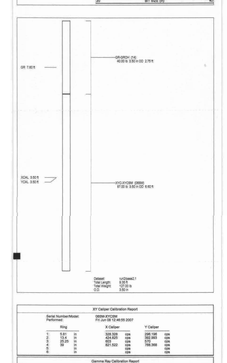



XY Caliper Calibration Report

| | |
|---|---|
| Serial Number/Model: | 2006-01-0104 |
| Performed: | 21 Jun 06 10:46:05 2007 |

| Ring | | | X Caliper | | Y Caliper | |
|---|---|---|---|---|---|---|
| 1 | 5.81 | in | 328.525 | cps | 356.128 | cps |
| 2 | 11.75 | in | 627.000 | cps | 655.000 | cps |
| 3 | 17.69 | in | 925.475 | cps | 953.872 | cps |
| 4 | 23.63 | in | 1221.500 | cps | 1250.000 | cps |

| | | | |
|---|---|---|---|
| Calibrator Value: | 125 | GAPI | |
| Background Reading: | 25.4253 | cps | |
| Calibrator Reading: | 1221.5 | cps | |
| Sensitivity: | 0.75447 | GAPI/cps | |

Gamma Ray Calibration Report

| | |
|---|---|
| Serial Number/Model: | 2006-01-0104 |
| Performed: | Tue Feb 21 13:13:15 2007 |
| Calibrator Value: | 125 GAPI |
| Background Reading: | 25.4253 cps |
| Calibrator Reading: | 1221.5 cps |
| Sensitivity: | 0.75447 GAPI/cps |

YOUNGQUIST BROTHERS, Inc
GEOPHYSICAL LOGGING DIVISION

# CEMENT TOP TEMPERATURE LOG

| | |
|---|---|
| Company | FGUA |
| Well | UPPER ZONE MW-1 |
| Field | LEHIGH ACRES W.T.P. |
| County | LEE |
| State | FLORIDA |

| | | | |
|---|---|---|---|
| Company | FGUA | | |
| Well | UPPER ZONE MW-1 | | |
| Field | LEHIGH ACRES W.T.P. | | |
| County | LEE | State | FLORIDA |
| Location | FLORIDA GOVERNMENT UTILITY AUTHORITY | Other Services | SEE COMMENTS |
| Permanent Datum | Elevation | Elevation | |
| Log Measured From | | K.B. | |
| Drilling Measured From | | D.F. | |
| | | G.L. | |

| | |
|---|---|
| Date | 10-JUNE-2007 |
| Run Number | THREE |
| Depth Driller | 685' |
| Depth Logger | 685' |
| Bottom Logged Interval | 671' |
| Top Log Interval | SURFACE |
| Open Hole Size | 24" |
| Type Fluid | MUD |
| Density / Viscosity | NA |
| Max. Recorded Temp. | NA |
| Estimated Cement Top | NA |
| Time Well Ready | ON ARRIVAL |
| Time Logger on Bottom | 1200 |
| Equipment Number | 103 |
| Location | FT. MYERS |
| Recorded By | GOODWIN |
| Witnessed By | M. REGON |

Borehole Record

| Run Number | Bit | From | To |
|---|---|---|---|
| ONE | 12.25" | SURFACE | 760' |
| TWO | 24" | SURFACE | 685' |

Borehole Record

| Run No. | Bit | From | To |
|---|---|---|---|
| | | | |

Casing Record

| | Size | Wgt/Ft. | Top | Bottom |
|---|---|---|---|---|
| Surface String | 26" | .375 W.T. | SURFACE | 110' |
| Prot. String | 16" | .375 W.T. | SURFACE | 680' |
| Production String | | | | |
| Liner | | | | |

<<< Fold Here >>>

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Comments

STAGE 1 LOGGED ON 6/10/07 @ 1200

YOUNGQUIST BROTHERS, Inc
GEOPHYSICAL LOGGING DIVISION

# STAGE 1

| | |
|---|---|
| Database File: | lehilzmw.db |
| Dataset Pathname: | run3/CTL1 |
| Presentation Format: | ctl_mg |
| Dataset Creation: | Sun Jun 10 11:51:44 2007 by Log 6.2_B4 |
| Charted by: | Depth in Feet scaled 1:600 |







| | |
|---|---|
| Dataset: | run3/CTL1 |
| Total Length: | 2.45 ft |
| Total Weight: | 30.00 lb |
| O.D. | 1.62 in |

Temperature Calibration Report

| | |
|---|---|
| Serial Number: | 16 |
| Tool Model: | MLS |
| Performed: | Tue Feb 27 11:18:53 2007 |

| Point # | Reading | | Reference | |
|---|---|---|---|---|
| 1 | 320 | cps | 32 | degF |
| 2 | 700 | cps | 70 | degF |
| 3 | 2000 | cps | 200 | degF |

CONSOLIDATED
DRILLING & WORKOVER
SERVICES, INC.

| | |
|---|---|
| Company | FOLIS |
| Well | UPPER EDGE NBU 1 |
| Field | LENSH ACRES N.T.P. |
| County | LEA |
| State | FLORIDA |
| Other Services | DIPMETER |
| Location | 1320 FSL 1320 FWL SEC 1 T-20-S R-34-E |
| Elevation | KB 3600 DF 3599 GL 3575 |
| Date | 07-17-2007 |
| Run No. | ONE |
| Depth Driller | 9700 |
| Depth Logger | 9700 |
| Bottom Log Interval | 9700 |
| Top Log Interval | 2700 |
| Casing Driller | 13 3/8 @ 1000 |
| Casing Logger | 1000 |
| Bit Size | 12 1/4 |
| Type Fluid in Hole | BRINE |
| Density / Viscosity | 10.0 / 29 |
| PH / Fluid Loss | 10.0 / NA |
| Source of Sample | PIT |
| Rm @ Meas. Temp. | 0.06 @ 75 |
| Rmf @ Meas. Temp. | 0.05 @ 75 |
| Rmc @ Meas. Temp. | 0.08 @ 75 |
| Source Rmf / Rmc | CALCULATED / CALCULATED |
| Rm @ BHT | 0.04 @ 150 |
| Time Since Circulation | 12 HRS |
| Max. Rec. Temp. | 150 |
| Equipment / Location | 5-7 / HOBBS |
| Recorded By | J. FORSYTH |
| Witnessed By | MR. BRIAN CLEVELAND |

YOUNGQUIST BROTHERS, Inc.
WIRELINE SERVICES

A.V. CALVERT
CARGO
LEA

This interpretation represents an interpretation of data from our wireline logs or other measurements we are able to run. It is provided for the sole or exclusive use of the addressee. It is based on assumptions and is subject to our standard terms and conditions. Although it represents our best judgment, we make no warranty or guarantee as to its accuracy or correctness, or as to the productivity of any zone or formation.

DIP/MFL

OTHER SERVICES:

DUAL INDUCTION
BOREHOLE COMPENSATED SONIC

BOREHOLE VOLUME IN BARRELS

YOUNGQUIST BROTHERS, Inc.
WIRELINE SERVICES

# MAIN PASS

Company Co. FOLIS
Company Rep. A.V. CALVERT
Company Geologist
Company Engineer
Company Operator
Company Rig
Depth Log Date 07-17-2007 Run No.1 Log 9_7_DIP
Depth Log Time 12:00 AM
Depth Log Unit
Depth Log Type DIP
Depth Log Source 9700 Log 9_7_DIP
Log Interval 9700 TO 2700
Casing Driller 13 3/8 @ 1000
Casing Logger 1000
Bit Size 12 1/4
Type Fluid in Hole BRINE
Density / Viscosity 10.0 / 29
PH / Fluid Loss 10.0 / NA
Source of Sample PIT
Rm @ Meas. Temp. 0.06 @ 75
Rmf @ Meas. Temp. 0.05 @ 75
Rmc @ Meas. Temp. 0.08 @ 75
Source Rmf / Rmc CALCULATED / CALCULATED
Rm @ BHT 0.04 @ 150
Time Since Circulation 12 HRS
Max. Rec. Temp. 150
Equipment / Location 5-7 / HOBBS
Recorded By J. FORSYTH
Witnessed By MR. BRIAN CLEVELAND

SUMMARY DIP (DAPP) 100 TO 9700
0 CALIPER (IN) 20
0 CALIPER (IN) 20
0 AZ DEG 360

Caliper Arm
Caliper Pad
Caliper Pad
Caliper Pad
Caliper Arm

Company: EQUIN
Well: UPPER ZONE WM-1
Field: LEVISA KORES W.T.P.
County: WAKULLA
State: FLORIDA
Other Services: CAMERA CONDUCTIVITY/TEMPERATURE
Permanent Datum: GROUND LEVEL
Log Measured From: KB
Drilling Measured From: KB
Elevation: KB: 0 GL: 0
Date: 12-Dec-2007
Run Number: ONE
Depth Driller: 1500
Depth Logger: 1500
Bottom Log Interval: 1500
Top Log Interval: 0
Casing Driller Size: 0 @ 0
Casing Logger Size: 0 @ 0
Bit Size: 0
Type Fluid in Hole: FRESH
Density: 0
Viscosity: 0
Max Rec Temp: 0
Equipment: 0
Location: 0
Recorded By: 0
Witnessed By: 0

YOUNGQUIST BROTHERS, Inc.
Geophysical Logging Data
DATE: 20-DEC-2007
ID: 11
UPPER ZONE WM-1
LEVISA KORES W.T.P.
LEVISA KORES WM-1
WAKULLA COUNTY, FLORIDA

THE INFORMATION OR OPINIONS IN REPORTS OR PRINTOUTS PROVIDED BY YOUNGQUIST BROTHERS, INC. IS BASED ON INTERPRETATIONS OF DATA BY YOUNGQUIST BROTHERS, INC. PERSONNEL AND ARE BASED ON SOUND PROFESSIONAL INTERPRETATIONS AND OPINIONS. YOUNGQUIST BROTHERS, INC. MAKES NO REPRESENTATIONS OR WARRANTIES AS TO THE ACCURACY, COMPLETENESS, OR SUITABILITY OF ANY INTERPRETATIONS OR OPINIONS BASED ON DATA PROVIDED BY OTHERS.

Service Log

OTHER SERVICES

X-Y CALIPER / GAMMA RAY
BOREHOLE COMPENSATED SONIC

## MAIN PASS

YOUNGQUIST BROTHERS, Inc.
Geophysical Logging Data

Company File: 0FG0005.dlis
Company Name: EQUIN
Company Well: UPPER ZONE WM-1
Company Field: LEVISA KORES W.T.P.
Company No: Date: 20-Dec-2007 09:00 EST
Company No: Depth: 0 - 1500 (MD)
Company No: Channels: 2 Point sample: 1 Frame

Gamma Ray (GAPI) 0 - 150
Caliper (Inches) 0 - 20

Deep Resistivity (Ohm-m) 2000
Medium Resistivity (Ohm-m) 2000
Shallow Resistivity (Ohm-m) 2000

Deep Resistivity (Ohm-m) 2000
Medium Resistivity (Ohm-m) 2000
Shallow Resistivity (Ohm-m) 2000

## MAIN PASS

YOUNGQUIST BROTHERS, Inc.
Geophysical Logging Data

Company File: 0FG0005.dlis
Company Name: EQUIN
Company Well: UPPER ZONE WM-1
Company Field: LEVISA KORES W.T.P.
Company No: Date: 20-Dec-2007 09:00 EST
Company No: Depth: 0 - 1500 (MD)
Company No: Channels: 2 Point sample: 1 Frame

Gamma Ray (GAPI) 0 - 150
Caliper (Inches) 0 - 20

Deep Resistivity (Ohm-m) 2000
Medium Resistivity (Ohm-m) 2000
Shallow Resistivity (Ohm-m) 2000

Deep Resistivity (Ohm-m) 2000
Medium Resistivity (Ohm-m) 2000
Shallow Resistivity (Ohm-m) 2000

## MAIN PASS

YOUNGQUIST BROTHERS, Inc.
Geophysical Logging Data

Company File: 0FG0005.dlis
Company Name: EQUIN
Company Well: UPPER ZONE WM-1
Company Field: LEVISA KORES W.T.P.
Company No: Date: 20-Dec-2007 09:00 EST
Company No: Depth: 0 - 1500 (MD)
Company No: Channels: 2 Point sample: 1 Frame

Gamma Ray (GAPI) 0 - 150
Caliper (Inches) 0 - 20

Deep Resistivity (Ohm-m) 2000
Medium Resistivity (Ohm-m) 2000
Shallow Resistivity (Ohm-m) 2000

Deep Resistivity (Ohm-m) 2000
Medium Resistivity (Ohm-m) 2000
Shallow Resistivity (Ohm-m) 2000

## REPEAT PASS

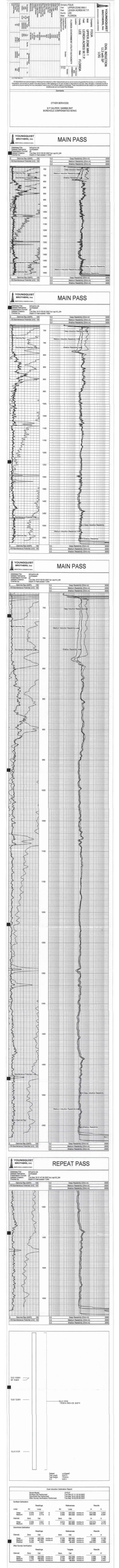
YOUNGQUIST BROTHERS, Inc.
Geophysical Logging Data

Company File: 0FG0005.dlis
Company Name: EQUIN
Company Well: UPPER ZONE WM-1
Company Field: LEVISA KORES W.T.P.
Company No: Date: 20-Dec-2007 09:00 EST
Company No: Depth: 0 - 1500 (MD)
Company No: Channels: 2 Point sample: 1 Frame

Gamma Ray (GAPI) 0 - 150
Caliper (Inches) 0 - 20

Deep Resistivity (Ohm-m) 2000
Medium Resistivity (Ohm-m) 2000
Shallow Resistivity (Ohm-m) 2000

Deep Resistivity (Ohm-m) 2000
Medium Resistivity (Ohm-m) 2000
Shallow Resistivity (Ohm-m) 2000




Dual Induction Calibration Report

Serial Number: 0FG0005
Date: 20-Dec-2007 09:00 EST
Operator: Jeff Hutchinson
Operator Witnessed: Jeff Hutchinson
Operator Witnessed: Jeff Hutchinson

Surface Calibration

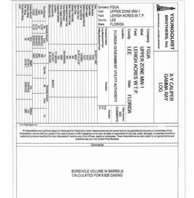
| Loop | Readings | | References | Results |
|---|---|---|---|---|
| | air | Loop | air | air |
| Channel | 2.000 | 2.000 | 0.000 | 2.000 |
| Offset | 0.000 | 0.000 | 0.000 | 0.000 |

Downhole Calibration

| Channel | Zero | Cal | Zero | Cal | air | Cal |
|---|---|---|---|---|---|---|
| Channel | 2.000 | 2.000 | 2.000 | 2.000 | 2.000 | 2.000 |
| Offset | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

After Survey Verification

| Channel | Zero | Cal | Zero | Cal | air | Cal |
|---|---|---|---|---|---|---|
| Channel | 2.000 | 2.000 | 2.000 | 2.000 | 2.000 | 2.000 |
| Offset | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |


YOUNGQUIST BROTHERS, Inc.
Company: TOUR
Field: UPPER DENSE NM-1
Well: LENSH-KOREB N.T.P.
Date: 1-Jun-1993
Time: 12:00:00
County: FLORIDA
State: FLORIDA
Country: USA
Comment: GAMMA RAY, CALIPER, DENSITY, NEUTRON
Depth Scale: 1:200
Log Date: 1-Jun-1993
Log Time: 12:00:00
Run Number: 1
Depth Reference: KB
Elevation: 0.00 m
Permanent Datum: GL
Log Measured From: KB
Drilling Measured From: KB
Top Log Interval: 0.00 m
Bottom Log Interval: 1500.00 m
Casing Schlumberger: 0.00 m
Bit Size: 0.00 mm
Type Fluid in Hole: WATER
Density: 0.00 kg/m³
Viscosity: 0.00 mPa.s
Fluid Loss: 0.00 cm³
Source of Sample: FLOWING
Rm at Measured Temp: 0.00 ohm-m
Rmf at Measured Temp: 0.00 ohm-m
Rmc at Measured Temp: 0.00 ohm-m
Rm at BHT: 0.00 ohm-m
Max Recorded Temp: 0.00 degC
Equipment: 5-CALIPER GAMMA
Location: 1 MILE NORTH OF LENSH-KOREB N.T.P.
Recorded By: J. HORTON
Witnessed By: J. HORTON
5-CALIPER GAMMA
DENSITY
NEUTRON
Gamma Ray (API) 0 - 100
Caliper (in) 6 - 16
Density (g/cm³) 1.95 - 2.95
Neutron (%) 45 - -15

YOUNGQUIST BROTHERS, Inc
GEOPHYSICAL LOGGING DIVISION

# (6.625" CASING) CEMENT TOP TEMPERATURE LOG

| | |
|---|---|
| Company | FGUA |
| Well | UPPER ZONE MW-1 |
| Field | LEHIGH ACRES W.T.P. |
| County | LEE |
| State | FLORIDA |

| | |
|---|---|
| Company | FGUA |
| Well | UPPER ZONE MW-1 |
| Field | LEHIGH ACRES W.T.P. |
| County | LEE |
| State | FLORIDA |
| Location | FLORIDA GOVERNMENT UTILITY AUTHORITY |
| Other Services | SEE COMMENTS |

| | | | |
|---|---|---|---|
| Permanent Datum | | Elevation | |
| Log Measured From | | K.B. | |
| Drilling Measured From | | D.F. | |
| | | G.L. | |

| | |
|---|---|
| Date | 21-Sep-2007 |
| Run Number | ONE |
| Depth Driller | 1487 |
| Depth Logged | 1487 |
| First Reading | SURFACE |
| Last Reading | 1487 |
| Open Hole Size | 6.625" |
| Type Fluid in Hole | MUD |
| Density / Viscosity | NA |
| Max. Recorded Temp. | NA |
| Estimated Cement Top | SURFACE |
| Time Logger on Bottom | NA |
| Equipment Number | CM-1000 |
| Location | FT MYERS |
| Recorded By | D. STEVENS |
| Witnessed By | M. BESON |

| Casing Record | Size | Wgt. | From | To |
|---|---|---|---|---|
| Surface String | 10 3/4" | 32# | SURFACE | 119 |
| Production String | 6.625" | 28# | SURFACE | 1487 |

| Bit Record | Bit | From | To |
|---|---|---|---|
| Run Number | 1 | SURFACE | 1487 |
| Bit Number | 1 | SURFACE | 1487 |
| Type | TRICONE | SURFACE | 1487 |
| Size | 6.625" | SURFACE | 1487 |

| Equipment Record | Type | Size | From | To |
|---|---|---|---|---|
| Run No. | MCSCY | | | |
| Bit | | | SURFACE | 1487 |
| Centralizer | | | SURFACE | 1487 |
| Stop Collar | | | SURFACE | 1487 |
| Flexible Joint | | | SURFACE | 1487 |
| Drill Collar | | | SURFACE | 1487 |
| Drill Pipe | | | SURFACE | 1487 |
| Other | | | SURFACE | 1487 |

<<< Fold Here >>>

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 willful negligence 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.

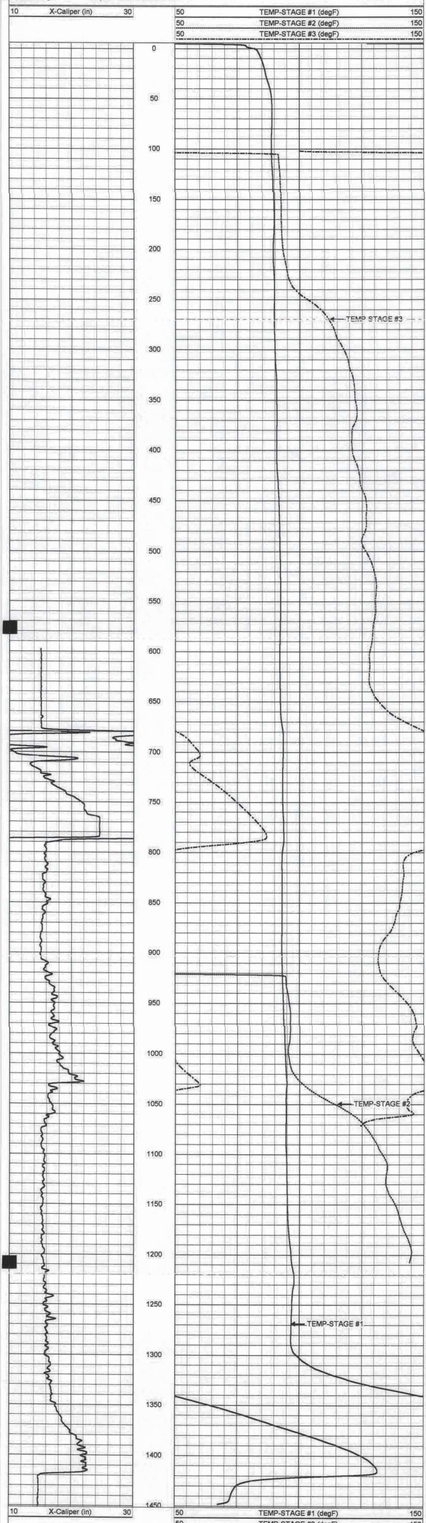
Comments

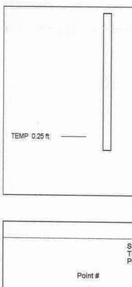
STAGE 1 LOGGED ON 9/20/07 @ 1230
STAGE 2 LOGGED ON 9/21/07 @ 2300
STAGE 3 LOGGED ON 9/22/07 @ 1200

YOUNGQUIST BROTHERS, Inc
GEOPHYSICAL LOGGING DIVISION

# MERGED CTL

Database File: lehluzmw.db
Dataset Pathname: run8/TEMP1
Presentation Format: ctl_mg
Dataset Creation: Fri Sep 21 12:36:13 2007 by Log 6.2_B4
Charted by: Depth in Feet scaled 1:600




Dataset: run8/TEMP1
Total Length: 2.45 ft
Total Weight: 30.00 lb
O.D. 1.62 in

Temperature Calibration Report

Serial Number: 17
Tool Model: MLS
Performed: Tue Feb 27 11:19:44 2007

| Point # | Reading | | Reference | |
|---|---|---|---|---|
| 1 | 321 | cps | 32 | degF |
| 2 | 700.1 | cps | 70 | degF |
| 3 | 2000.1 | cps | 200 | degF |