

MOBILE DRILL LOG #26

Forestry Suppliers, Inc.

1-800-647-5368

49354 Level Book

10/1/2014
to
9/16/2015

DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING

Roadway of any Width. Side Slopes 1½ to 1.

In the figure below: opposite 7 under "Cut or Fill" and under .3 read 11.0, the distance out from the side stake at left. Also, opposite 11 under "Cut or Fill" and under .1 read 16.7, the distance out from the side stake at right.



FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION

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Printed on Recycled Paper. www.dep.state.fl.us

6	9.0	9.2	9.3	9.5	9.6	9.8	9.9	10.1	10.2
7	10.5	10.7	10.8	11.0	11.1	11.3	11.4	11.6	11.7
8	12.0	12.2	12.3	12.5	12.6	12.8	12.9	13.1	13.2
9	13.5	13.7	13.8	14.0	14.1	14.3	14.4	14.6	14.7
10	15.0	15.2	15.3	15.5	15.6	15.8	15.9	16.1	16.2
11	16.5	16.7	16.8	17.0	17.1	17.3	17.4	17.6	17.7



FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION

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30	45.0	45.2	45.3	45.5	45.6	45.8	45.9	46.1	46.2
31	46.5	46.7	46.8	47.0	47.1	47.3	47.4	47.6	47.7
32	48.0	48.2	48.3	48.5	48.6	48.8	48.9	49.1	49.2
33	49.5	49.7	49.8	50.0	50.1	50.3	50.4	50.6	50.7
34	51.0	51.2	51.3	51.5	51.6	51.8	51.9	52.1	52.2
35	52.5	52.7	52.8	53.0	53.1	53.3	53.4	53.6	53.7
36	54.0	54.2	54.3	54.5	54.6	54.8	54.9	55.1	55.2
37	55.5	55.7	55.8	56.0	56.1	56.3	56.4	56.6	56.7
38	57.0	57.2	57.3	57.5	57.6	57.8	57.9	58.1	58.2
39	58.5	58.7	58.8	59.0	59.1	59.3	59.4	59.6	59.7
40	60.0	60.2	60.3	60.5	60.6	60.8	60.9	61.1	61.2

PE STAKE

.9	to
	Cut or Fill
1.4	0
2.9	1
4.4	2
5.9	3
7.4	4
8.9	5
10.4	6
11.9	7
13.4	8
14.9	9
16.4	10
17.9	11
19.4	12
20.9	13
22.4	14
23.9	15
25.4	16
26.9	17
28.4	18
29.9	19
31.4	20
32.9	21
34.4	22
35.9	23
37.4	24
38.9	25
40.4	26
41.9	27
43.4	28
44.9	29
46.4	30
47.9	31
49.4	32
50.9	33
52.4	34
53.9	35
55.4	36
56.9	37
58.4	38
59.9	39
61.4	40

lowes TAX EX, #
386 - 362 - 1813

The paper in this book is
made of 50% high grade rag stock with
a WATER RESISTING surface sizing.

[illegible]

DEPT. ENVIRONMENTAL PROTECTION
FLORIDA GEOLOGICAL SURVEY
IF FOUND PLEASE RETURN TO:
DEP / FGS
3900 COMMONWEALTH BLVD
MS # 725
TALLAHASSEE, FL 32399

Well Number 19505

Site Name GW-6F

S 04 TOW R 02E

County LEON

Elevation 175' (topo)

TD

GPS 30°31'11.2"

084°07'53.6" (AVG. 363 counts)

Mobilize to site 10/1/2014

GW-6F

Mobilize w/ B.C.

On site met w/ Tony from NWFNMD

set up site. Holes need to be relocated

securing site & heading to where.

Back @ 3:48 p.m.

10/2/2014

@ office 7 a.m. met w/ B.C.

waiting to have a meeting w/ DTP & T.C.

on site. Relocated bore hole (core hole)

clearing debris. And sampling

0'-6" gray brn sand

6"-20" brn sandy clay, brn org sandy clay

Rig 4183

Rig 4186 10/6/14

20" - 46" brn org sandy clay

3'10" - 5.2 org brn sc

securing site and heading to whse.

@ the office 4:26 p.m.

10-3-14

ET. out to Microsutter Creek ways
to install silt fencing. Back @
Noon.

10-6-14

ET, BC Heading to GW-4 to
clear site.

5.2 - 6.75 lt gray rd brn sandy clay

6.75 - 7.75 Same

7.75 - 8.50 Same

8.5 - 9 Same

10-7-14
water 7.7'

Rig 4188.

9-9.5 same

Securing site and heading to office
@ office 4:45 p.m.

10-7-2014

BC & ET @ office 7 a.m., waiting
for DTP. DTP in @ 8 a.m. w/ T-shirts
w/ PERS logo. BC & ET headed to site.
On site @ 9:42 a.m.

9.5-9.75 grey rd sl

9.75-10.5 same

10.5-10.75 grey clay w/ more sands,
some what moist

10.75-11.25 same

11.25-11.75 same

11.75-~12.50 same

~~10/6/14~~
~~Rig 4188~~

10/8/14
Rig 4190

Securing site & headed to w/se.
@ whse 4:16 p.m.

10-8-14

ET met w/ BC @ 8 a.m.
heading to GW-6 in Schramm
to Mobe. & demobe. Picking up Mobile
Rig & Cargo Trailer.

CHANGE RV OUT TO SCHRAMM

3-02-2015

This morning J. Hurd pointed out to me that when he was doing vehicle inspections and the mobile rig did not start and the water truck DEPOBDD (6017) would not run on idle. I checked the mobile rig and the water truck (6017) the rigs problem was that J. Hurd wasn't compressing the clutch enough.

But the mobile rig (6017) would not run on idle, as he said. ET, JH, GR & BC inspected the vehicle. Low on oil, I knew the truck had just gotten a PM @ Captol Hydraulics in January had been driven to two job sites and had no previous problems no sensors indicating that while being driven for over 100 miles. But on 3-02-2015 a sensor would not let the truck run at idle. ET & GR tracked down the paper work on the trucks PM, ET called Captol Hydraulics and a tech came out. The truck was to

FAMU / ANF #4

A.M. loading out alone. Load out ready @ 2:45

3-02-15 ET & JH 3pm heading to site w/ J. Hurd on site. Parked mobile rig & heading back to the office. Back @ 5:45 p.m.

3-03-15 ET & GR

ET in @ 7:30 a.m. GR @ 5:15 a.m.

Going to site, lower ^{PCRF} to pick up postcard
Finishing mobilization, set up rig
after prooving back over hanging limbs
from access road (fire break) brake)

2 1/2 gallons low on oil. I don't know but Capital Hydraulics has always done a good job for me. I just find it hard to believe that they forgot to fill the truck with oil. All receipts and work orders show that 24 gts. of oil were put in during PM service. And the service supervisor agrees with me, if the truck was that low on oil it would never had been drivable. And the truck was driven out to Mica Creeperways GW-6, and out to Home Depot off of Capital Circle NW to return the Bobcat after cleaning up the GW-6 well site. 100 miles?? The sensor would have stalled the truck out to keep the engine from blowing.

3-04-15 ET & GR

E.T. here at 6:45 G.R. in @ 6:20 am. Loading green trailer, lower to pick up cement, on site and begining to auger.

0'-5' brown tan Fine sand

5'-10' same

10'-15' orange tan Fine sand

15'-20' same

20'-25' tan orange brown fine sand

25'-30' same

30'-35' brown dark brown silty fine sand

- moist - tan brown core sand - wet

35'-40' brown tan fine sand

40'-45' tan light grey brown sand - wet -
water table @ 39' 8"

45'-50' same / between 40'-50' clay, & L5 fragments

- decor. casing - PVC.

- lowering PVC screen and riser

- run-up inside of hollow stems

- starting to develop out with air
using the stainless steel trimmer

this worked for about 1 1/2' Ft.

sand started to intrude the hollow
stem before we could set screen
and riser. Securing site @ office 5:10pm

3-05-15
water table 23'.7"

3-05-15 ET & GR

ET in @ 7:50 a.m. GR in @
on-site mixing drilling fluids
and attempting to remove 4.5'
of sand that ran up into
my hollow stems.

- pulled trimmer
- pulled riser and screen
- lowered 40' HQ & 8' core barrel
- mud rotary, hole open to 50.5'

• 50.5' open hole

• 50.75' casing riser, screen, and well
point

• well point @ 48.75'

• top of screen 38.75'

Rain and storms coming.

securing site and heading
back.

@ office 5:15 p.m.

0'
10'
20'
30'
40'
50'

Rig 4213

3-06-15

ET @ office 8 am.

CR in at 7:45 a.m.

heading to site

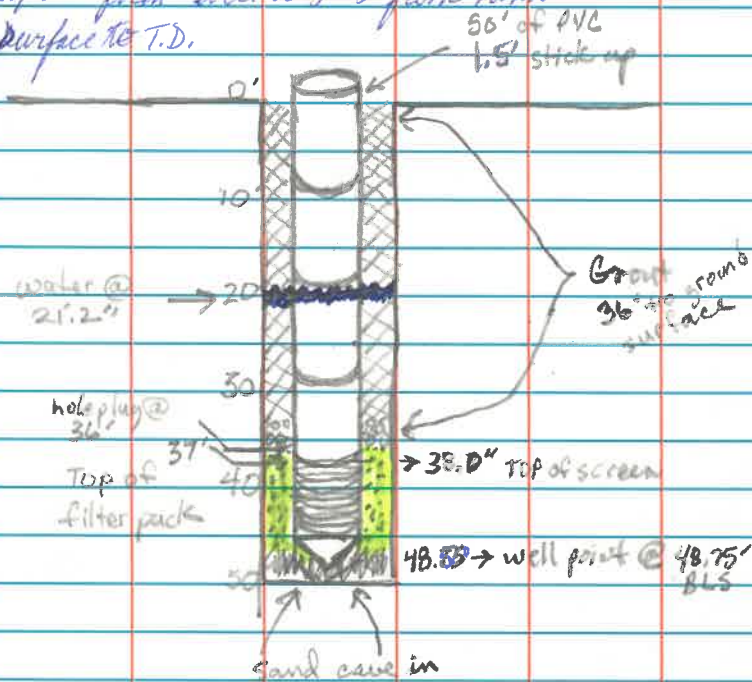
- 21'2" water table inside casing
- 22'7"
- Filter pack @ 37.5'
- hole plug @ 36.5'
- grouting
- 10 - bgs. of portland 94 lb bgs.
- pulling hollow stems
- grout approx. @ 13' BLS
- out of grout
- securing site and heading to the warehouse

Back at the office 5 p.m.

FAMU/ANF #4

3-06-2015

w/ well point well is 50.5' from land
Surface to T.D.



• well screen plus well point = 10.75'

cover all depth of well 48.5' ft.

3-09-2015

ET & CR going out to FAMU/ANF #4
Setup @ lower to p/u Portland cement
& drop off Hunter keys & gate cards.

B.C. noticed that the transfer case
looked like it was getting hot ???

• Transfer case: low on oil
• front axle low on fluid
• now adding fluids

• On site water @ 21.3" ft.

• Concrete tagged @ 13.2" ft.

• pulling hollow stems
• moving mobile rig
• level area around well and building
and form.

• grouting (5-bags)
• need 2 to 3 more bags of Portland
5. ft. will p/u and deliver
• Last batch of cement (3 bags)

Cleaning & securing site, heading
to the office. Office @ 4:21 pm

3-09-15

Rig 4213

51.6" from top of
well cover to bottom of well

- 18 bgs. portland total -
ANK# 4

3-10-15

ST & GR, ET in @ 8:15

Talked w/ DTP

• Lowes

• on site

• water table 21.2" Ft

• developing well & loading equipment

• Pad: 1 bg. Portland

2 bgs. Quikrete

1 bag fine filter sand

• finishing pad

• securing site @ 3:14 p.m.

Rig 4217

3-11-15

(water 21.7" ET)

ET & GR in @ 8:15 a.m.

Taking materials to finish site
paint, etc., water

• bracing pad form

• developing well

• covering notes

• paint well covers on all FAMU/ANF
wells

3-12-15

ET & GR

final site inspection, covering ruts, etc.
site clean and finished.

Back to warehouse to unload

3-13-15

Unloading ANF #4 and loading
for State Map.

3-17-2015

ET @ work 8 a.m.

out to site ANF #4 to take final
measurements

- 2' 11" stick up above land surface
- 51' 6" pvc. over all length of casing
- 48.10 BLS
- 22' water
- cement pad 26" x 26"

3-23-15

@ work 8:20 a.m.

• Leaving office @ 10:15 a.m.

• Fuel issue on the Georgia Florida Parkway, Phil put gas in a diesel truck

• Brice & Leve drove F-150

• Chiefland Mobile Rig w/ Fuel issues

• priming pump every 2 miles to $\frac{1}{4}$ mile

• Called diesel mechanic out
he primed and purged fuel line.

E.T. drove to test. Truck
stalled again. Mechanic checked
tanks. Tanks had gravel in side.

• Guy Richardson called tow truck
through Wex #

• Truck was towed to Model's Inter-
national of Ocala

• Leaving International @ 11 p.m.

• Checked into hotel @ 11:30 p.m.

• end of day finally

Now having running issues w/
DEP06017, @ half tank truck
starts to sputter, and tanks
suction is too strong when
trying to refill.

3-24-15 w/ GR & Phil B.

In track by 9 a.m.

- Check in w/ Mandlin International
- mobilized to site
- met w/ Park ranger or park keeper
- picked site & park large trailers
unload NQ, 3" casing & 4" casing
- securing site & heading back
to Tallahassee
- DEP06017 fuel issues @ a-half
tank.

Filled tank and problem stops

- venting must be clogged
and causing heavy suction on
the tank, causing the fuel pump
to strain & cause a sputter.

• Back in Tallahassee @ 7:30 p.m.

FECHTEL TRACT 28° 54' 47.4" N
W-19536 81° 24' 24.4" W

4-9-15

- ET & BA leaving office @ 3:30 p.m.
- four Star Freightliner to p/u tools
 - on to Ocala
 - @ Mauldin International @ 8:45 p.m.
 - p/u rig
 - lodging @ 9:50 p.m.

4-10-15

- @ 6:30 a.m. ET & BA met to discuss the day's mission.
- on the road to Wekiva State Park
 - on site @ 10:30 a.m.
 - set up site
 - pushing samples

0-2.5 CLEAN SANDS w/ ROOT FRAGS

2.5-5.0 CLEAN SANDS & CLAY

5.0-7.5 SANDY CLAY w/ ROOT FRAGS

7.5-10 SANDY CLAY w/ ROOT FRAGS

securing site & heading to Jolly

4:25 p.m.

hole collapse @ 7'9"
water table unknown yet
as of 4-15-15

- ✓ hard hats
- therma-cell (cell) - in truck
- ✓ gatorade
- ✓ non-eth. gas

Rig 4234 (4-15-15)

4-14-15

ET & JH p/u DEPO6017, load
for the field. Leaving office
@ 4:45 p.m.

@ hotel: Quality Inn, Mt. Dora Fla.
Lodging @ 10:40 p.m.

4-15-15 JH & ET met @
7am. Headed to site

on site set up circulation system
set up site.

pushing 4" & 3" casing
~~breaking~~ breaking off to
p/u hard hats, etc.
back to site

10'-15' grg lt grg sandy clay, grg lt grg
silty sand (loose sands maybe 70%-75%)
15'-20' same as above 75%

hard down feed stops @ 37" in, above land surface
22' securing site @ 6:35 p.m.
and heading for lodging 7:52 p.m.

Water 3.2 ??

O.D. on NQ & I.D. on 3" were a very tight fit
3" was chasing NQ, caused a minor problem w/ time.

Problem fixed & advancing from 20' Ft. on

4-16-15

ET & JH met @ 6:30 a.m.
on site @ 8:00 a.m.

mixing fluids & running fluids.
extend 3" casing to 20' b15.

20'-25'- lt grey tan silty sands
low pressure & fast feed down to catch anything. soft

25'-30' same as above

30'-32.5' same as above

we went 2 1/2' Ft. more to see if it would improve recovery. It did not 😞

😊
32.5'-35' same as above, really soft

35'-37.5 high mud pressure, losing mud but got plugging off. Must be thick clays. had to stop @ 37.5' both hawthorn clays.

37.5'-40' drk grey blk silty sand w/ some clays

40'-45' drk grey blk silty sand

4-10-15

3" casing 48' Ft. string
3" casing 45' Ft. BLS.

Rig 4241

4/11/15

Water 6.6'

Loss of sample, at times fluids were not returning to the surface. But clays @ 35'-37.5' may have closed off annulus to allow smooth circulation. This concerns me, enough to run 3" casing down to where we are now @ 45' Ft. Or 35' Ft. into the clays. Plus we would have better hole stability.

Running 3" casing from 20' to 35' or 45' Ft.
• 3" casing down to 45' Ft. BLS.
• lowering NC to 45' Ft. & coring

45'-50' tan brn clay, ^{45'-46 1/2'} gry drk gry
sandy clay, 46 1/2' Ft drk gry clay sand
@ 49.5' Ft drk gry tan clay to tan brn
limestone

Securing site & heading for lodging
50' @ hotel 6:05 pm

4/17/15 ET & JH met @ 6 am.
loading bags into 607, & heading to
site

50'-55' Ocala

55'-60' - Ocala

60'-63.75' re-crystallized Ocala, 62.75' ^{drk??} gry l/s
something hard, maybe jamming my
inner barrel. So we are pulling sample

63.75'-65' drk gry blk lime stone
maybe Ocala??

65'-70' gry dk gry tan brn l/s ^{drk gry blk shaly} loss @ 67.5
(62'-70') gry lt gry ls w/ brn sand & small
voids @ 63' drk gry blk organics
70'-75' gry lt gry ls w/ tan clayston &
@ 72' lt gry white mud stone w/ tan fine
clay sands w/ dol. silt

75'-80' same as above

80'-85' gry lt gry ls w/ some tan
clay sands

(Losing fluids to the formation.)
85'-90' same as above

90'-95' gry ls rubble, lost some - maybe
Tampa ls / looking

needs: Diesel ✓

3" casing ✓

wood blocks ✓

Rig 4245

4/17/15

Quality Inn Mt. Dora

352 - 383 - 3400

95'-100' Avon Park

Looking at this sample & seeing that we recovered 100% of the 95'-100' sample there should have been sample on top of the 95'-100' run. I believe that I washed away soft sediments that were in with the rubble.

Securing site & heading to Talley

back in Talley @ 7:37 p.m.

4-20-15

ET. & SB leaving 11:36

Travel to Mount Dora

Arrive @ hotel 6:06 p.m.

water 8' 1 1/2"

4-21-15

ET & SB met @ 6:30 a.m.

Opening up site

- level rig
- condition fluids & well (bore hole)
- no returns, may ex/ 3" casing ??
- 100' - 105' above park
- regained returns
- 105' - 110' same as above
- still loss of fluids
- 110' - 115' same as above
- mixing another pit of drill fluids
- no returns on 115' - 120' for fluids
- 115' - 120' same as above
- minimal fluid returns
- 120' - 125' same as above
- Jan grey lime stone above Park
- no fluid return 125' -
- 125' - 130' same as above, then bore 4 1/2
- above Park w/ silty sands
- same returns
- 130' - plugging off, rods trapped, tried hammer & broke sand line. Bent slip plate & fixed. now running 3" casing over top of N2 to extend casing & free N2.

4/21/15

Rig 4251

4/22/15

Rig 4257

running 3"

Ran 20' x 3" casing

- securing site & heading for lodging hotel @ 7:40 p.m.

4/22/15

ET & SB met @ 6:30 a.m.

- headed to site

• water run to the St. John's River

- back to site, mixing fluids &

• running 3" casing to 115' Ft. BLS

- water run @ 4:00 p.m.

• Back to site @ 4:54 p.m.

- Continuing to run 3" casing to 130' BLS

• hooked up to NO after having pushed it 6" down into the 3"

- took a little while to get on top to attach, but hooked up & circulating fluids.

securing site

@ lodging 9:30 p.m.

Quik-Gel*

✓ Towels

Soda ash*

✓ Core boxes

Granter*

Cargo Trailer sizes

L 16' Ft

W 7' Ft.

Tire ST 225/75R15

Lug pattern - 5 lug / $4\frac{1}{2}$ " in. between

Max load 1150 lbs. _{lugs}

4-23-15

Met w/ SB. @ 7:30 a.m.

• opening up site

• circulating fluids

• coring

Sands that caused locking, was @ 130'-131.5'

130-135 Lt grey clay sand; tan brn

l/s avon park, dk grey blk organics
1 grey tan l/s w- sands

135-140 Lt grey brn lime stone avon park,
@ 36' void grey dk grey sandy clay

140-145 same as above, soft sand grains
avon park

* Water run to the St. Johns *

145-150 tan grey brn l/s avon park w/
nice fossils, grey tan brn l/s w- dk
grey blk organics

150-155 tan brn grey l/s (avon park)
Some what crumbly

155-160 Same as above, tan or brn l/s
avon park, ~~lighter~~ harder

160-165 tan brn l/s (avon park),
tan brn l/s w/ clay fill, soft l/s
tan brn - in color

Rig 426B

Securing site & heading for lodging
@ hotel 7:30

4-24-15

ET & SB met @ 7:00 a.m.

- on site, running fluids
- continuing to sample

165-170 brn tan L/S (avon park)
w/ some clay, tan brn L/S (avon park)
softer & sand clays

170-175 tan brn gry L/S (avon park)

175-180 tan brn gry white L/S,
tan brn gry L/S w/ fossils, tan brn
Lt gry L/S w/ organics, tan brn Lt
gry L/S w/ fossils

180-185 tan brn gry L/S avon
park

185-190 same as above, gry Lt gry
white clay, tan brn L/S (avon park)

190-195 tan brn L/S (avon park)

195-200 ~~same as above~~ Same as above, Lt gry tan brn
L/S Layered w/ organics, tan Lt gr L/S 24

4-24-14
Rig 4267

Still have 60' of NQ onsite

Securing site & loaded for Tally
Ocala Nat. Forest

Tire blowout on DEP6017

6:30 pm - Tire repair done @
10:41 p.m.

Driving to Tallahassee
arriving at 2:15 a.m. Saturday
morning.

4/27/15
ET & AK loading for site
leaving 1:05 p.m.

Travel to field

Lodging @ 6:34 a.m.

4/28/15
met w/ A.K. @ 6:30 a.m.
Rain delay on site
• running fluids

200 - we are in something very hard
and having trouble pulling the

sample, we have tried for
about 45 mins. so far and may
have to pull the hole string ???

200- 205 Avon park formation

tan to light greyish limestone with ^{organic}
Charcoal ~~black~~ to dark grey ~~tan~~ ^{laminations}
Texture is fine to coarse
~~slightly dolomitic~~
Slight Dolomite, moderate
induration

205-210 Avn Prk Fm.

light grey to light tan color
Fine to coarse (mostly coarse)
block Sucrosic texture. ~~tan to dark grey~~ ^{very few}
of ~~tan to dark grey~~ ^{laminations} (organic)
From 208.15 to 210 very fossiliferous
(bivalves and gastropods present), poor to
Fossil Frag. ~~sample~~ moderately indurated,
~~tan to dark grey~~

210-215 ~~tan to dark grey~~ Avn P.K. Fm.

Tan to light grey carbonate
w/ moderately grey ^{laminations}
^(organic) 26

Fine to coarse texture and
sucrosic in deeper half of interval.
Burrow ~~like~~ like holes present
(possibly from bioturbation). Sample
is ^{slightly} dolomitic and fossiliferous
(shell fragments, bivalves, gastropods,
molds, and casts). Moderately
indurated.

215 - 220 Avn Prk Fm.

Light grey to tan w/
moderately ^{black} to dark grey
organic ~~laminations~~ S. Very fine to coarse
texture ~~fine~~: Less ~~fossiliferous~~
fossiliferous than above sample.
Some ~~dolomite~~ and moderately
indurated

220 - 225 Avn Prk Fm.

Light grey to ~~tan~~ ^{black} to dark grey
w/ ~~fine~~ to dark grey ~~laminations~~
Fine to coarse texture as ^{laminations}
well as sucrosic in parts of the
sample. Fossiliferous and
moderately indurated

225 - 230 Avn Prk Fm.

Light grey to greyish white
w/ black to dark grey organic
laminations ~~fine~~. Fine to coarse
~~texture~~ texture. Sample is
fossiliferous (bivalves, gastropods,
molds, possible sea grass fossil). Moderate
induration

Rig 4273

securing site and handling for
logging. @ hotel 7:30

4/29/15

ET & AL met @ 7 a.m.

Water:

230 - 235 Avn Prk

Light grey - greyish white
w/ black to dark grey organic laminations
Fossiliferous and moderately
indurated

235-240 Same as above

~~235-240 Same as above~~

240-245 Same as above

245-250 Ann Lrk Fm.

Light gray to greyish white
Organic laminations
absent. Sample is fossiliferous
(gastropods, bivalves, molds,
shell fragments) Burrows
present (bioturbation).
Moderate induration

Rig 4279

• clearing site

• trip out NA = 258' Ft

• trip out 3" casing 20'

Securing site

@ hotel 7:03 p.m.

4/30/13

Et & AK met @ 6:30 a.m.

• pulled 253' Ft NA

• pulled 90' x 3" casing

• grout up to 90'

• pulled 40' x 3" casing

• grout to top

• pulled 50' x 3" casing

Water
run to
St. Johns
River

Securing site

Rig 4282

@ hotel 7:00 p.m.

• grout last 12'

• pull 4" casing

Rig 4284

Core Boxes

Blocks

15 gals diesel

gator ade

water

towels

5-1-15

ET & AK met @ 6:30 p.m.

• grout lost 12' ft.

• pulled 4" casing

• cleaning site

Driving back to Tallahassee

@ office 7:20

ET in @ 7:40 a.m.

5/6/15 Heading out to Fichtel Tract
w/ GR, to mobilize to the
Marsh. Leaving @ 10:35 a.m.

arriving on site @ Emeralds Marsh
Conservation area. Confirm Lat. &
Long.

Heading for lodging. @ hotel
6:45 p.m.

5/7/15 met GR @ 6:30 a.m.
heading to Fichtel to mobilize to
Emeralds Marsh.

Probe: Cargo trailer & 6017

Back to Fichtel to p/u
Mobile Rig & cover nuts

5-7-15 Emeralda Marsh
W-19538

EMERALDA MARSH CONSERVATION
AREA

GATE COMBO 1399 FOR MAY

LAT. $28^{\circ}55'18.9''$

LONG. $81^{\circ}48'22.2''$

(39000 Emeralda Marsh Rd.,
Leesburg, Fla.)

wekiva 3649
for May

15 gals diesel
weed eater

5/8/15
Rig Hours 4287

Rig on site
Reading for logging
@ hotel 6pm

5-8-15

PT & GR met @ 6:30 a.m.

- lowes to p/u weed eater to clear
sawgrass away from the rig
- to prevent fires.
- p/u non-dk.
- p/u diesel

- on site cutting away sawgrass
- parked rig & set up site
- Rig maintenance
- pushing first 10' ft.

0-2.5 dk gry blk sand, dk gry tan
rd clay (hpc)

2.5-5 brn gry rd clay w/ some sands
& fine inclusions

5-7.5 same as above w/ some ~~at~~ white
sands, dk gry dense clays

7.5-10 dk gry clays (hpc)
refusal @ ~9.75'

15-gals diesel
water

Set up mud system. Securing site
and heading for lodging.
@ hotel 5:37 p.m.

5-9-15

ET & GR met @ 6:38 a.m.
check out & heading for site

water 5'6"

running 4" casing & 3" casing
9.5' - 10' tan org. clay (lpc)

10 - 15' tan org. clay w/ coarse sand
lost 75% of sample

15-20 tan sand / sand lodged
no sand locked w/ core barrel
could not free up. Securing site
& heading to Tally
- Rig 429P -

5-10-15

~~KMC~~, SARA Smith, Kirstyn Cataldo
KC, SS BAM - Kirstyn to meet us
in Leesburg

to EMERALDA Marsh drill site

- make water run
 - mix mud
 - fix core bbl + adj inner bbl
 - install 3" csg shoe
- to motel - end day 7 pm

~~#~~

5-11-15 KMC, SS, KC

BAM START - public - water,
gate valve etc

to site - repl seal in
W 2T swivel
run casing (3") to 18.5'

20-22 core w ext. shoe - v poor
recovery - sand

22-25 - sand - v poor recovery

25-30 sand - drilled w/o inner
tube - cuttings - bbl 1/2 soft

30-32.5 - drl w ext. shoe
- fed

32.5-35 SAM - poor recovery
west side

sandlocked - picking up 3" CS₉
w N Q

start pulling NQ/3" -

appear btm of 3" w @ top of
carbbl ...

leave it clamped + suspended

lock up for night

End day 6:30 pm

Rig home

5-12-15 SAM stark

KMC, SS, KC

to site - diamonds + unstuck

NQ/carbbl + 3" CS₉

prep to run 3" CS₉ back in

SUN 3.8' bLS

run in 3" CS₉ - collect cuttings

35-37.5' cuttings - gtz sd w

dk br organics/clay staining

return flow

37.5-42.5' cuttings - gtz sd on

above

42.5-47.5' cuttings - gtz sd, hor?

+ organics

packing for western 21
"100 gal" 4" tub
to west w. ext small 95
tub 22 3/4 x 43

bad 3" ~ 33' down

rig hour 4308

47.5 - 52.5' 4th sd as above
passing clay matrix

52.5 - 57.5 cutting - 9th sd as
above

57.5 - 62.5 same

62.5 - ~ 67.5 same then lost
circulation - mixed thick
mud + got at CSG to butt of
foot run (last ft)

70.5' NWT W ~ 2 1/2 - 3' stickup
rig hour 4304 - T.S.
End day 530

5-13-15 KML, SS, KC, BAM start
3' sd in butt of CSG
worked out in good mud +
penetrated

67.5 - ~ 70 lost circulation -
feels different drilling - pull 3'
off - add 3' will run NQ

ran NQ - no penetration after
28' stop ext shoe - 6" sd
recovered
ran 6th 2 1/2' w ruck shoe

✓ Fuel

• repair survival

✓ pull NA

2. X • pull 3

• mix fluids

2. X • ex. 4" casing

5/18/15

ET met w/ AK @ Whse

8:15 a.m. / Email, travel arrang.

receipts, loading 4" casing, PCRFS

for Quik Tool LV, & 24" x 24" x 48"

with from Tractor Supply, Gormans

to p/u Quik Tool LV & heading

to Lake Co. @ hotel 8:30 p.m.

Left Tally @ 2:30 p.m.

@ hotel
8:30

5-19-15

~~met~~ ET & AK met @ 6:30 a.m.

• email

• emailing receipts

• lower to pick up 8" PVC (no 8")

@ lower or Tractor Supply, P/U

6" PVC from lower for circulation
in case of having to run 4" casing.

on site, pulling NA from 3",
sand packed,
freed up & pulled NA

Water run, mix fluids, ex 3" to
15' BLS

(Water level: 23.8 ft)

Rig 4309

5:45 p.m.

- ✓ - changed oil in mud pumps
- ✓ - changed spark plug also
- ✓ 3" casing @ 76' Ft. BLS
76' Ft. string

5/20/2015

ET & AK met @ 6:30 am.
on site, separating mud tanks,
change oil in mud pumps.
& mixing polymer.
Having trouble w/ one mud pump
after service, discount auto parts
for four ^{new} plugs. Thunder storm -
waited in truck for 1 1/2 hrs.
Secured site & headed to
hotel. 5:30 pm Rig 9309

5/21/15

ET & AK met @ 6:30 am.
on site. pulling to 30' x 3" casing
to run fluids and advance
casing down to 75' BLS.
pushed 5' x 3" casing, now mixing
1 pit of Quick Trol LV / 1 pit
Quick gel & penetrator. Circulation
back @ 60' Ft. BLS. 3" casing @ 76' BLS
7

71.5 - 75.0 Greyish white fine to
coarse grained quartz sand

Contains heavy mineral
sands (trace to 1%)

5-22-15
Rig ~~4315~~ 4316

75'-80 Fine to Coarse greyish
white to dark greyish white quartz
sand → spherical subrounded grains
slightly more heavy mineral sands

80-85 Fine to Coarse dark greyish white
quartz sand → spherical subrounded grains
with a slight increase in heavy mineral sands

even w/ dark Trol LV the sands are
causing problems on every run. Not
totally holding to the bore hole wall.
may need No-sag also.
But we will try chasing the NO w/ the
3" casing. now securing site
@ hotel 6:35 p.m. (Rig 4315)

5/22/15
ET Met w/ AK @ 6:30 a.m.
headed to site / under run
pulling NO, & advancing 3" casing.

85-90 As above
sand locked, trying to free
drill rods.

6-01-15
Rig ran for 30 min

Rig
6-02-15
4321

No luck, freeing rods. So we are securing the site & heading home.

@ office 5:40

With this weekend being a holiday weekend we need to get a jump on traffic.

Home @ 5:40 p.m.

6-01-2015

ET & BA leaving Tally @ 10:50 a.m.
after picking up NO & 3"

leaving Tally @ 10:35 a.m.

heading to Emerald Marsh

Fuel @ GA. Fla. Pakng.

@ Emerald Marsh 4:15 p.m.

• Trying to free NO & 3"

• Thunder storms approx.

• @ hotel 5:30 p.m.

6-02-15

ET & BA met @ 7 a.m.

on to site, pulling NO (NO & 3" sand
locked together) lifting NO, clamping
3", unhook NO, unscrew 3" & lift off
of column & repeat until all 75' of 3"
and 93' of NO are out of the

water 6.6'

bow hole. Last 15' ft. of 3" &
last 23' ft of ND full of sand.
Breaking apart & wash out w/
water pressure. Securing site &
heading for lodging. @ Hotel
6 pm Rig 4321

6-03-15

ET & BA met @ 7 a.m.
arrile mixing fluids. Checked in w/
DTP was told to run all 4" casing.
?? I think we will be just as safe
running the 3" to something equivalent.
Fdk, talking it over w/ KMC
No Sanitary T to circulate fluids
Trip to lower to P/a sanitary
T-

- Back to site, Thunder storms
- sat in truck for 1.5 hrs.
- Securing site & heading to lodging
(@ hotel 6 pm
Rig hrs. (4321)

6-04-15

ET & BA met @ 7 a.m.
filled w/ fuel

6-04-15

Rig 4326

on site & running 4", no circulation throughout the 1st 40 ft. the HPC's are keeping ~~from 40' to 45'~~ fluids from reaching the surface. From 40' to 45' fluids are being pumped up 1 ft away from my drill neck. I am going to continue to advance 4" casing by pushing my 4" as far as I can, because there is little resistance to stop me. When I can't push anymore or when I hit some thing I will stop pushing & start cleaning out my 4" casing with 3" in down to 91' (drilling point where last sample was taken) and start catching cuttings until I reach the Hawthorne group or something hard.

4" casing @ 52.5' ft. BLS

w/ 10' of run up inside

now lowering 3" casing & clearing out around to 52.5' BLS

3" casing is now @ 51.5 BLS

Clouds approaching. Securing site @ hotel 6:30 pm

6/05/15 ET & BA met @ 8:45 am

4-bgs. Quik Gel

Check out of hotel & driving back
to Tally. @ office 2:40 p.m.

6-15-15 leaving town 11:45 a.m.
Met w/ AK @ Pubse 10:40 a.m., after my
physical therapy app.
ET in DEPOG017, AK in personal vehicle.
replace or change tire on AK's vehicle.
Driving to Lake Co. Belt broke on
DEPOG017, started to over heat. Call Wex^{@ 5:36 pm}
& DTP, Towe truck got to us @ 8 p.m.
DEPOG017 Towed to Maudlin-International of
I calo. Committing in AK's personal vehicle.
Told w/ Ed Fisher w/ Maudlin. He
said they would get to it first thing in
the morning. AK & ET traveling to
Mount Dora for lodge. (we had reservations)
@ Hotel 10:30 p.m.

6-16-15

ET & AK met @ 9 a.m. called Maudlin
and were told to check back in 2 hrs.
Called back @ 11:15 p.m. (Marcey: contact person)
• belt, tensioner pulley - bad. a.c. compression
test, got authorized from Jackie L Loyd

6-17-2015
Rig 4329

to email a quote. Testoner pulley
won't arrive until 5 p.m., it was not
in stock. (waiting on quote)

6-17-2015 ET met w/ AK @ 6:30 am.
called Mauldin @ 7:00 am., spoke
w/ Marcey. Did not get a quote
by 8 a.m., Driving up AK in AK's
personal vehicle to Ocala from
Mt. Dora.

- Drove by Revis Towing, They refused
to give me a receipt, called Jackie
to let her deal with them.

- Drove to Mauldin for quote & pick up
(this lasted to 12:30 p.m.) again I had to
call Jackie. & things got handled away
swiftly.

- on to site & pushed 40' FT x 3"
casing.

3" @ 87'

securing site @ hotel 6:30 p.m.

6-18-2015

Met w/ AK @ 7:00 am.
arrite running 3", 8" @ 99' BLS

6-18-15
Rig
4334

6-19-15
Rig
4335

6/18/2015

90-92: AS above
leaf litter from driller's mud.

92-110: AS above

washing sample up w/ NQ
thunder storms
securing site @ hotel 6 pm

6/19/2015
met AK @ 7 am
onsite pulling NQ

6-22-15

ET & GR met @ Whse 7:40 a.m.
paperwork reimb.
trav. paperwork
on the road @ 10:37 a.m.
@ hotel 4:30 p.m.

6-23-15

ET & GR met @ 7 a.m.
on site continuing to drill
adjusting inner barrel
cleaning casing out run up inside
3" down to 107' from 79' b/s.

~~107~~ 107'-109.5' cleaning out to start sampling

109.5-114.5 X lt grey wht c. sands

114.5-117.5 X same as above

117.5-124.5 X same as above

124.5-129.5 X same as above

129.5-134.5 X same as above

T-storms, securing site, getting in the truck
heading for lodging. Tornado weather

6-23-15

Rig 4341

6-24-15

Rig 4347

pulled NA back up into 3" casing
- 30' off bottom
134.5 @ hotel 5:30 pm

6-24-15

ET Met w/ Gik @ 7 a.m.

on site - measure to bottom see if
our hole is still established

105' - 134.5 re establishing hole

"134.5 - 139.5 X

139.5 - 144.5 X

144.5 - 149.5 lt gry white clay sand,
drk gry Hawthorne

149.5 - 154.5 drk gry clay, lt gry wht
L/S, drk gry clay Hawthorne, lt gry wht L/S,
lt gry wht L/S, drk gry clay, lt gry
wht L/S

154.5 - 159.5 lt gry wht L/S,
drk gry grn clay, tan gry wht L/S
(AVON PARK) 163.5

159.5 - 164.5 lt gry wht L/S, drk gry to
clay, lt gry tan-brown L/S, drk
gry clay

1-storms, securing site

@ hotel 5:30 pm - filling wt. till 6:30 pm 45

NON ETH.
ET $\frac{1}{2}$ GR. Crest #10
1

7699/e switch

6-25-15
Rig
4352

6-25-15 ET $\frac{1}{2}$ GR met @ 7am

• lowes

• discount auto

• on site

168.5 - 169.5 drk grey blk clay (hec)

Sample took 30 to 40 minutes to cut

169.5 - 174.5 drk grey clay w/ Rhynchonella

" cutting slow, after 30 mins. we are half way through the run. total run 1 hr. 15 min.

174.5 - 179.5 T-storms, we had to shut down before we pulled the sample because

~~179.5~~ 179.5 thunder storms were on top of us. We are probably done for today because we worked and noticed

it coming towards us for 3 hours. heading for lodging @ 3:15 p.m.
(@ hotel 4pm)

6-26-15

ET $\frac{1}{2}$ GR met @ 6am loading bags and checking out of hotel on site

174.5 - 179.5 drk grey grt clay, lt grey wht
1/5, drk grey grt clay

✓ 15 gal diesel

on site

✓ 2-bgs. Quik Gel

✓ 3-bgs. Soda Ash

Rig 6-26-15

4356

Came w/ 6 bgs Quik Gel

179.5 - 184.5 grn grn clay w/ some
L/s, grn wht L/s, grn dk grn
clay w/ phosphates & imbedded L/s,
lt grn wht L/s w/ calcite & clays

184.5 - 189.5 lt grn clay w- some L/s,
brn grn clay L/s

189.5 - 194.5 grn dk grn clay & lt grn
wht L/s - soft, x-block

194.5 - 197.5 ^{197.5} lt grn wht L/s
ocala?

197.5 - 199.5 ocala?!

199.5 - 204.5 (205) @ 203.5' ocala
loading grout, securing site
headed to Tally, in Tally
@ 7pm

7-07-15
only 260ish Ft of sand line
only 50' Ft of NQ

Rig 4361

7-06-15 ET @ office 7:50 ~~pm~~ a.m.
DTP looking over DEPO6017
ET & GR unloading Quik-Gel &
loading Quik-Gel leaving whse.
loading to Lake Co. @ 9:48 a.m.
in Lake @ 4:30 pm.

7-07-15 ET & GR met @ 7:30 am
headed to site

204.5 - 209.5 ocala, lt grg wht 1/5 - X -
NO Circulation

209.5 - 214.5 soft wht grg 4/5 - X -
NO Circulation

214.5 - 219.5 no sample, fell out when
retracting. Trying to plug out, add 5' of
next run to try and run 1 Ft. to
catch prior run. plugged off. pulling
5' Ft off top to redrill or free up.
string or inner barrel. No luck
pulling entire drill string 228' x NQ
May need to advance 3" casing
T-storm securing site @ hotel 5:15 pm.
214.5 -

7-8-15
water
15.95' Ft.
Rig 4361

7-8-15 GT & CR filling DEPO6017
@ 6:15 a.m. On site washing inner bore
out of core bbl., reaming shoe from
3" x 5' casing (need to exchange reaming
shoes) from serial 2-bit to geo-set
core bbl. & NA x 5' from spare inner
bbl. We spent the better part of the
morning separating rods & inner bbls
to get parts we need to make 1-good
core bbl. to continue.

Advancing 3" casing. Target depth is
144' Ft. BLS.

Securing site for the day.
@ hotel 5 pm, filling water truck til
5:45 pm

7-9-15 GT running late, ^{no} sleep machine
that horrible every night. Feels like no sleep.
Bt. ready @ 7. GT ready @ 7:30 am.
Onsite bore hole bridged @ 74' Ft. BLS
same spot as last time. Now conditioning
bore hole down to 214.5' or 219.5'
and maybe advancing 3" over NA.
But we maybe better off. Planning out
& going to TD ??? we will know
more when we get there.

7-10-15

gals 5- NON-ETH

gals 15- Diesel

1000 Ft. wire line

10 bgs. Quik-Gel

3- bgs. Soda ash

10' Ft. NQ + 5' Ft.

7-9-15

Rig 4367

7-10-15

Rig 4373

Conditioning bore hole

We are having to redrill to 214.50' Ft. BLS
mud in bore hole. This also will
reestablish the bore hole. 11:30 a.m.

@ 99.5' Ft. → continuing to establish
bore hole stability.

Loss of circulation @ 113.5' BLS.

Between 114.5' & 119.5' circulation is starting to
come back slow.

- out of water @ 158' Ft. running
- @ Hotel 5:15 p.m. filling water truck
until 6 p.m.

7-10-15

7 a.m. met w/ B.R. leaving Hotel
on site continuing to run w/ NQ
from 163' Ft. BLS to 219.5' Ft. BLS

• reached to 214.5' & sampled from 214.5' - 219.5'
and caught some of the sample
we lost previously.

• now advancing 3" to 144.5' Ft. BLS
3" in @ 145.5' BLS, seeping site.

7-13-15 KC, Matt Pritchett dept. 9AM
Emerald Marsh Site

mix mud, fuel rig, make inner
manifolds on rig. wait out
thunderstorm...

clear out hole, run inner bbl in
ready to core

219.5 - 224.5 - buster run ~ 6" rec
soft loss ls - cut smooth (?)
outer bbl clear

End corig - rig home 4324

End day 700 PM

7-14-15 KC, MP, 7AM START
mix mud

flush hole

224.5 - 227' w soft or even
cavity (?) NO recovery
run taper rods clear - hole bit
@ 227.

run ext shoe

227 - 228.5 soft at top bit none.
resistance @ ~ 227.5 refusal at
~ 228.5 - crumbly fracture

16 - 2gr pkstore - pmb still
ocul. abd gty sd mtd in w
base banner

228.5 - 229.5 - rubble - ls on above
~ 4.5" recovered - then soft.

229.5 - 231.5 - 18" rod - soft no recovery

231 - back in w ext. shoe refusal
at 231.6 ±

~231.6 - 234.5 soft poorly ind
ls. to ss. - v. gray - poss dupk (?)

234.5 - 239.5 - med. h'd drilling
but NO recovery....

bk in T.S.

rod clear but for ~ 3"

mix med to flint rods

- spl stuck inside outer bit -

inner bit won't latch

- pull up string - clean out

core bit - recover ~ 1' rubble ls.

redrill 234.5 - 239.5 to ensure
clean hole

239.5 - 241.75 1/4" hard moldie ls,
last 4" soft granular with
moldie

241.75 - 244.5 $\frac{1}{2}$ in bw mud ind
var moldic, some gw/pls

244.5 - 249.5 1 ft. bw speckled granular
ls/dolo thin mud bw/dk sgy muddy
org. rich dolo.

249.5 - 254.5 same as dolo above
top 1/2 thin crin moldic chalky
ls

End coring for day
Rig home 4385

End day 8:10 pm

7-15-15 KC, Matt, E.T., Tam start
mix mud, discuss hsa drilling
options - sd Pies to Rick

254.5 - ~256.5 As btm of last run

~256.5 - 259.4' med, dk bw + gy dolo
var moldic - some v hard some
soft + pasty

259.4 - 264.5 - bw + gy dolomite, var
inductive var moldic / laminar
organic laminae

600 PSI Btm mt gage

NEED

~~18" hole~~

addl. centrifugal pump
chg dog spring in overhdt
NQ slip Jaws
sw hoist plug - w NQ
hd w square pin

handy pipe adaptor
1 1/4" male by HP male
(pin down)

Handy pipe slip plate
18" hole

2" + 1 1/4" can be gaskets
w 2nd swivel packing
repair 24" chain wrench

264.5 - 269.5 SAME

269.5 - 274.5' SAME TD

big thunder storm coming - pack up
slang & go to hotel - wait out
t.s. 2:30 - 5:00

pull NQ, return to M&L
END day 8:00 PM

2-16-15 KC, MP, ET 215
START
SWL 9.5' BLS

pump 2 bags quick grout
then tremmie - pump in
out top of 3" CSG - tag top of
grout @ ~ 20' BLS

pull 3" CSG
grout @ ~ 35' BLS

pull 2 1/2" CSG
grout @ 34' BLS
grout to top of well

7-17-15
Rig 4395

LAKE MONROE COMBO
3007

clean up grout
top off grout @ L.S.

Securing site, headed for lodging
@ hotel 6:43 p.m.

7/17/15
ST & MK met @ 7 a.m.
• checked out, drove to site
• loading drill rod & casing
• clean site & abandoning site
• headed to Tallahassee
@ office 6:35 p.m.

7-20-15 ^{MP} MK @ 8 a.m.
ST @ work 9:15 a.m. had hollow stem
augers, water, suction hoses etc.
Travel reim. & leaving to make. From
Emeraldia Marsh to Lake Monroe
Conservation Area.
leaving Whse 1:45 pm
@ lodging 6:31 pm

W-19550

LAKE MONROE CONSERVATION

AREA - Cor. N $28^{\circ}49'38.2''$
W $081^{\circ}09'59.9''$

7-21-15

ET & MK met @ Tam.

Healed to site Emerald M. met
to Lake Monroe Conservation Area.

- Hook up to Cargo Trl.
- cover nuts
- repair tail light on 6017
- check air press. on cargo Trl.
- Mob. to LAKE MONROE, 6017 & cargo trl.
- Back to Emerald to put mobile Rig
- Mob. to LAKE MONROE, all equip. on
site by 4:45 pm. site set up

@ lodging 6 pm

7/22/15

ET & MK met @ Tam

on site, site set up. Push sample 1 st. 10' RT

ET replacing toggle switch

MK weeding grass

replace spring in 18" pipe wrench

0'-2.5' drk gray blk silty sand,
grg tan fine sand, drk gray blk silty
sand, drk grg blk lt grg fine sand

water
4' BGS

Rig 439B

2.5'-5' drk grey blk brn fine sand
silty but 4" in. too moist to
stay in test space, hole collapsed @
4' 4" water @ 4' BGS.

Switching over to hollow stem augers

5' T-storms @ 1:27 p.m.

In truck waiting out storm

5'-7.5' drk brn silty sand (hard pan)
Minimal sample, water run, hollow stem
7.5' to septum in water & is not getting
very good samples, we may be
recovering 25% under water table.

now lowering 1 1/2 section hose
down to pump up sample out of
H.S. only a small amount of sample
was lifted and too fine to catch
w/ sieve. Attempting to make run from
7.5'-8' using sampling system.
no sample was retrieved. Tried to
pump sample again and no sample
could be caught w/ sieve.

Time is burning & we may switch over
to coring after talk w/ DTP in the
a.m.

Securing site @ hotel 2:18 p.m.

7-23-15
Rtg 4402

7-23-15 met

ET & MP @ 7 a.m. on site placing
call to DTP to ask to core well.

Hollow stem system is failing to pro-
duce good sample under water table.

We are in hard zone, it should
be easier to sample w/ coring system
9:00-9:35 lt grey clay sands
T-storms

9:15-14:75 grey lt grey clay w/ some sands

14:75 - 19:75 grey grn clay / LOR. LOC.
extending 3" casing & pulling NG
clean core bbl. T-storms

3" @ 19:75' BLS, hole open to
17:75 - 2' ft. of fluff, clear in
the a.m. & continue to core.

Securing site & heading for logging
11:30 @ hotel

7/24/15

ET & MP met @ 7 a.m.
on site misc fluids, clear hole, began
coring.

19:75-24:75 rubble dol stone ???

Rig 4405

L.O.C.

24.75 - 29.75 Loss of circulation, regaining circulation same u. c. rock, seemed as though it was continually cutting so I continued the run, only to retr. minimal sample

29.75 - 34.75. Dolo stone ??? caught shell cuttings, I think rock got jammed in inner bbl. and crushed all the shell under it, rep. sample of shell cuttings

to
34.75 - 39.75 shell, w - rock incl. ???
caught cuttings also

39.75 - 44.75 shell w/rock dolo stone ??
(out of water)

T-storms coming in, securing site & heading for Tally

45 min traffic delay in Jacksonville
@ office

Quik Gel ✓ 10 bgs
Soda Ash ✓ 2 bgs
NON-ETH. ✓
DIESEL
BOXES ✓ 2 - perck's
NOSAB ✓ 2 buckets
wood blocks ✓ 1-5 gal bucket

Rig

7/27/15 MP & ET met. @ 7:45 am
• paper work
• load out
11:40 a.m. on road. on site @ 5:15 pm
drove to site, checked on site.
T-storms heading for lodging. Found
lodging @ 6:04 pm.

7/28/15 ET & MP met @ 6:30 a.m.
heading for site, @ site open up
set up - water @ 5.75'
water run. Ext. 4" casing to
19.75', Ext. 3" casing to 44.75'
- T-storms - 1 hr delay
continuing to run 3" casing & 4"
casing is set. Cleaning hole of
debris. Now casing (T-storms)
44.75' - 49.75' dolo stone w/ inner
bedded shells, also caught cuttings
more T-storms, securing site
and headed to lodging

Rig

4:09

met @ 5 pm

2/29/15

ET & MP met @ 6:30 a.m.

cleaning bore hole of cuttings & debris. grease all fittings, etc.

~~149.75~~ Water run

I was told by the P.M. to make hole ^{9 a.m.} p.m.

149.75 - 154.75 L.O.S., cuttings collected
crushed dol stone & shell

154.75 - 159.75 L.O.S., collected cuttings

Pulling NA X 63' ft, something is wrong. Either a
~~159.75~~ - 164.75 rock is jammed in my
core bbl. or my inner bbl. spring is
wrong. After pulling all NA there is sample
& breaking the feed end of my core
bbl., cleaning & checking core bbl. adjust-
ment. All clear all good to go.
setting up to core again. 😊

159.75 - 164.75 L.O.S. feel back when
retrieving sample, collected cuttings

164.75 - may have to run 3" to meet
tip of drill bit

164.75 - 167.25 2.5 ft. run to improve
recovery. Ocala

67.25 - 69.75 Ocala

(69.75 - 74.50)

69.75 - ~ 74.50 Ocala

~ 74.50 - 74.75 Ocala, had to make a 2' run to cut harder rock

74.75 - 79.75 avon park, definitive A.P.
@ 75' BLS

79.75 - ~~84.75~~ 82.75 @ 82.75' BLS feed stopped
pulling sample & going back to get last
2' ft. of the run. 79.75 - 82.75

82.75 - 84.75 L.D.E. avon park, pouras,
brn sand & clay

84.75 - 89.75 N.C. avon park, brn
sandy clay

89.75 - 94.75 still no (N.C.) A.P.

94.75 - 99.75 A.P., T-storm's
• Securing site

Rig 4413

• heading for lodging
@ hotel 6:30 pm

- 6 bgs. quick-Gel

Lig
4418

7/30/15
ET & MP met @ 7:30

On site water run

on site mixing fluids, clearing bore hole

99.75 - 104.75 A.P., Same lt. gry wht, w/long

104.75 - 109.75 lt. gry wht L/S A.P.

109.75 - 114.75 lt. gry wht L/S A.P.

114.75 - 119.75 Same as above

119.75 - 124.75 lt. gry tan wht L/S
A.P.

124.75 - 129.75 / T-Storms & water run
back from water run & this storm may run up

124.75 - 129.75 T-Storms, lt. gry wht A.P. off.

T-Storms, securing site. @ hotel
6 pm

7/31/15 ET & MP met @ 9 am

~~124.75 - 129.75~~

129.75 - 134.75 light tan gry L/S A.P.

134.75 - 139.75 lt. gry wht L/S A.P.

Monday being
granted
order soda and
Trailer tire

139.75 - 144.75 same as above

144.75 - 149.75 Lt gray wht 4/5 A.P.

149.75 - 154.75 same as above

154.75 - 159.75 same

159.75 - 164.75 tan brn 4/5 A.P.,
wht gray 4/5 A.P.

164.75 - 169.75 ^{169.50} on the last run
we ran ^{169.50} on water & mud (Fluids)
so we cut 4.75' Ft. of the run.
We will harvest the last .25' Ft.
when we return Monday.

Securing site & heading for Tally
Dig 4422' (124.75' Ft cored
this week)

6:45 p.m.

8-03-15

ET & MP met @ 8 a.m. - wise

- paper work, receipts
- sign new travel MAP 13 DRILL 13
- load grouter & water
- load boxes 2 - bundles
- P/U 5-bga, soda ash (Gorman Co.)
- drop receipt to DTP
- leaving Tally @ 1:30 p.m.

Traffic jam on I-95 south
@ hotel 6:30 pm

8-04-15

ET & MP met @ 7 a.m.

- lows to P/U Casorade, hand saws, sun block.
- head to site, clean drill and broke drill
- water fill up (water table 13.3' ^{PS1})

on site opening up & beginning to
core, ~~finishing~~ finishing. 25' ft. of core
169.50 - 169.75 bore hole is clean
to bottom 169.75' b.t.s.

169.50 - 169.75 - wht lt grey AP
T-storms

169.75 - 174.75 wht lt grey AP
T-storms

174.75 - 179.75 Lt gry wht l/s
Avon Park

179.75 - 184.75 Lt gry wht l/s A.P.
w- organics

184.75 - 189.75 Same as above

189.75 - 194.75 Lt gry wht l/s A.P.,
gry blk clay, Lt gry wht l/s A.P.
w- organics

194.75 - 199.75 wht Lt gry l/s Avon
Park

199.75 - 204.75 Same as above, common
organics

204.75 - ~~208.50~~ / run fell short, T-storms
appro., and out of water @ 5.30 p.m.
We will finish in the A.M.

gry wht tan brn dolomatized rock
Avon Park, brn tan sandy rock

v/ heavy organics, dolomatized
decaying site. (Rig 4428) @ hotel 7 p.m.

* 8-05-2015 ET & MP met @ T.a.m.
(208.5 - 209.75)

water run, mixing fluids

208.5 - 209.75 hard dol stone ?? w/org.
Avon park, it took about 30-45 minutes
to cut 1.25' ft.

only 5-bags. Quick-Gel left
4-bags. Soda ash

212'

209.75 - 214.75 almost out of water, through
~ 2 ft of sampling / had to stop run
and refill w/ water - for brn dolo ??

Avon Park ?? pulling NA to change to
212' - 214.75 a series 10 bit
pulling NA to 218' string

212' - 214.75 brn tan dolo stone ??
A.P. ??

T-storm, securing site & heading for
lodging @ hotel 6:34 p.m.

Rig 4433

9-06-18

21 1/2 MP mlt @ 7 a.m.

• on site

• trip out NA X 218' string

• grout

1st batch 80', pulled 80' trimmie

2nd batch 84', pulled 78' trimmie

3rd batch @ 50' BLS pulled 45' tr

grout to top. pull 3" & 4" casing

4-bags used in all

cleaning drill rod & loading equipment

Rig 4437

W-19551

Lake Jessup

gate combo
4030

Securing site, & heading to scout
Lake Jessup. @ Jessup, water supply
within 1 mile. Gate combo works.
Need to call property manager tomorrow
to see availability, it seems cover
frequent the property. @ hotel
7:40 pm

8/07/2015

ET & MP met @ 6 am
Check out of hotel, heading to drill
site (Lake Monroe) to try and finish
Abandonment and move on to Lake
Jessup Conservation Area, Rtg 4437
LAT. N 28° 47' 10.2"
LONG. W 081° 11' 15.1"
Driving back to Tally

In @ office 6:15 pm

8-10-15 ET & MP met @ 7:45 whse.
load Quilt-Bel, p/u Soda ash from
Gorman Co., paper work. ET p/u
glasses from Optical center. 1 hour out
Driving to study area,

having transmission issues.
pulled over in Macklenny Fla.
truck did not want to pull or
cycle through gears.

- check trans. fluid (Full)
- decided to turn around
- truck drove fine until it heated
up to temp. ~~for~~ trans. sensor
continued to go off. when taking
a hill.
- @ office 9:30 p.m.

8/11/15 MP @ whse 8 a.m. ET @ whse
9 a.m. load necessary tools & drill
rod product into dually & green
trailer. Take DEP6017 to 4-star
Freightliner for repair. end day.
3 p.m.

8/12/15 ET & MP in @ 5:45 whse
T-storm, waiting to load bags & depart
for study area @ 7:00 a.m. ^{Pete (Pete)}
@ late morning, spoke w/ Keith Miller
@ SDRMD. To meet @ Jessup to pick
a spot to drill & the availability
of the site. Back to L.M. to
d/r grout & rig.

8-12-15
4436

8-13-15
4437

Mobilized to Jessup. Second site
Headed for lodging. @ hotel 7:50 pm
LAKE Jessup W-

8/13/15 ET & MP met @ 8 a.m.

- Lake Monroe to make nuts
- changing oil & oil filter in
Mobile rig / T-storms, on site
in the truck
- oil change finished / T-storms

Lake Jessup / W- 19551

N 28° 47' 08.1"

W 081° 11' 16.6"

T-storms, heading to hotel
to wait out storms
@ hotel 4:00 pm

8-14-15 ET & MP met @ 7 a.m.
on site, water run, unload grouters,
set rig up, getting sound readings

(Next Page)

off @ 48.6

Rig @ operating speed (coring)
w/ mud pump (Trask Pump)

operator's side: 78.4

assistant's side: 78.1

sample table @ 15' from drill
stand: 76.8 (76.8)

Rig off: 48.6

Rig @ idle: 69.8

Rig in coring speed:

Grouter off: 48.6

Grouter @ idle: 92.8

Mud pump off: 48.6

mud pump @ running speed: 88.0

Dually off: 48.6

Dually @ idle: 65.8

Weed eater off: 48.6

Weed eater @ idle: 89.0

Setting up to grab sample

0' - 2.5' drk gry blk silty sand,
lt gry silty clay sand

2.5' - 5' gry sand clay, gry to brn
sandy clay

water table 3' BLS

8/14/15
Rig 4444

5' - 6.25' refusal, can't push too
dense - same as above lt gry clay sand
last 2" are lt gry wht fine sand

Switching to mud rotary

6.25' - 10' lt gry wht fine sand
extend 3" to 10 ft. BLS

10' - 15' brn drk brn silty sand
no circulation

15' - 20' lt gry highly plastic
clay, brn drk brn clay sand
(N.C.)

20' - 25' lt gry tan fine sand, drk
gry blk clay sands
(N.C.)

25' - 30' lt gry clay sand, drk gry brn
sandy clay. Stopping to run 3"
(N.C.)

pulled NA to clear, T-storms
securing site @ hotel 7 p.m.

8/15/15

ET & MP met @ 6 a.m. headed to site
mixing fluids, noticed that there is some
artesian pressure @ the surface

of the well, this may be why we did not have circulation throughout the last 20' ft. drilled yesterday. We are running 3" down to 30' ft. BLS. to see if this helps w/ the art. pressure & helps w/ better recovery.

- Ext. 3" to 30' BLS
 - Lowering NQ X 33' string, cleaning 3" down to start @ sampling depth 30'-35' don't see grey sand w/ some clay
- securing site & heading to Jolly

Rig 4446
Back @ whse 6:04 pm

8/19/15 GR & MP

GR & MP on site at 7 am • set-up, tried to lower NQ, locked in sand, pulled string, removed diverter, • site partially flooded, water still flowing, couldn't tell where from since 3" casing was down 5' below lip of

3" casing to 30' BLS $\nearrow$
+ 5 @ 33'
to 35' BLS

4" casing to 18' BLS
2' stick-up
20' total

NQ

4" casing, added 5' of 3" to slightly above 4" casing, • could see the flow coming up the annulist between the 3" and 4" • start 4", emptied discharge tub, made mud, broke 10' of 4" into 5's rope broke on pump, fixed that • 4" to 18' BLS - 2' stick-up 20' total • flow up annulist stopped with 1st 5' added, put 10' more in to make sure hole stable, 2 spots erupted while putting in 4" casing; one to the left of stand about 3-1/2', the other about 3' directly behind well • NQ back in, added 5' cored to 37.5' went back in, sand locked immediately, pulled string, 3" casing down hole again with measure tomorrow am. • went to Lowe's for step-stool & garbage bags

35' to 37.50 coarse to med, light brown
sand Rig 4451

3" casing 35' BLS
+ 5
39-40 BLS

4" casing 18' BLS

quik gel 1
quik trol 1
quik sag 1

8-20-15 GR+MP on site at 7:25
stopped on the way for ice • started
working on the sandlocked inner barrel
tagged water 4 1/2" BLS, tagged 3"
casing 4 1/2' ~~BLS~~, added 5' for
below 4" casing stick-up
a stick-up 2 1/2' above ground,
Finished with inner barrel around
10 am, started lowering NQ back
in hole - hit sand at 21', reamed
out sand till the last 5' / 35'-40'
put in inner barrel cored new
sample,

37.5-40' light brown fine sand
pulled NQ so I could case down
through trouble zone, added 5'
on 3" started pump - pegged out
Rig hours 4457 1/2

8-21-15 GR+MP at 7:15 am stopped for
ice, tagged sand in 3" casing at 33'-8", called
Dave - as suggested pulled 5' of 3" casing,
pumped fluid and sand came out, put
5' back in 3" string drilled down & added
one more 5' pc to 45'-2" stick-up

43' BLS

~~40' 43'~~ brown fine sand to clay at
end of run - decided to stop here since
clay showed up

fluid started coming out of pipe
put on 3' pc of 3" casing most of flow
cut-off / took off 3" stub added
4" stub to casing and attached 4" drive
head to cut-off flow

Rig hours 4458

ET, GR, & MP

08/24/15 - 'Load' - DEP 4894 (Water Truck
broke down)
left Tally @ 11:20

- Took 40-50 ft of both
N& + 3 inch casing

on site, water run, headed
for lodging. @ lodging 5:30 p.m.

8/25/15 ET, GR & MP met @ 6:30 a.m.
opening up GR stopped @ 45' BLS w/
3" casing. In Sampley should
start @ 45' Pt. BLS

45' - 48.5' tan fine sand, grey silt grey
sand w/ some clays 46

8/25/15
Rig
4464

48.5-50' drk gry blk clay

50-52' drk gry blk sand, lt gry
sand w/ some shell

52'-55' tan gry ^{fine} sand w/shell

55'-60' drk gry clay w/shell
This puts us just over 800' Ft. ~~minimum~~
~~60'~~ minimum for the state map
project deliverable between 60'-65'
BLS

60'-65' same drk gry blk clay w/
shell

65'-70' Lt gry wht sand clay w/
shell / artesian pressure w/ at least
~10' Ft. of head pressure. Extending
3" casing to stop flow. flow under
control 3" @ 70' BLS

70'-75' drk gry clay w/shell
heavy artesian securing site to
go find Glasse @ hotel 6pm

8/26/15 ST, MP & GR met @
8 am. in site.

Hole Products
Landy Burns
407-292-2690

Atlantic Supply
Mike Gordon
407-246-6511

8-26-15

4468

8/27/15
4469

75'-76.5 shell

Artesian pressure

76.5-78.75 drk gry blk clay w/
shell

78.75-80 gry drk gry sandy clay
w/ shell / sand locked, blowing
to pull entire string. Artesian
pressure is causing run up inside of
the HQ / advancing 3" casing
to 80' BLS.

Securing site

~~80'~~

8/27/15

ET, MP, GR met @ 8 a.m.

Trip to hole products to pick up
20 bgs. of Berick 41 to stop
Artesian if it flows stronger.

Back on site cleaning out to
start sampling @ 80'. T-storm
& severe weather appro.

securing site @ hotel 3 p.m.

It took 3 people to run to Orlando to p/u products

8/28/15

ET, MP, & GR met @ 7 a.m.

on-site cleaning hole to 80' FLS

run up to 85' BLS
shell & heavy minerals are coming up
hole. Trying to control w/
polymer

80' - 85' dark gray sandy clay w/
shell
sand locked, freeing drill rods
& inner bbl

32' Ft. of run-up inside of
the 3" casing
securing site & finding fittings
for DTP & KMC

Rig hours 4473

Heading to Dally

@ office 6:02 p.m.

9-14-15 ET & GR headed to Lake Jessup
9-15-15

ET & GR met @ 8 a.m. headed to
site, water run, mixing drilling fluids
sand inside of 3" casing up to 42.8' Ft.
BLS. hole depth is @ 85' Ft. BLS
42.4' Ft. of run-up inside 3" casing
attempting to clean out back down
to 85' BLS extend 3" to 85' 79

Rig
447C1

Ft. BLS. advance 4" casing as far as possible, use Baroid 41 to slow artesian flow so allow us to continue to core. Cleared out to 68' Ft. BLS, T-storms
1 1/2 hour rain delay, more T-storms closing up site. @ Hotel 2:30 p.m.

9-16-15 ET & GH met @ 7:30 a.m. on site clearing back down to 85' BLS. from 63' Ft BLS.
(@ 80'-85' Ft BLS adding Baroid 41 to help slow artesian pressure. Then advance 3" to 85' Ft. BLS
"water run")

85'-90' lt grey wht clay sand w/ shell

90'-95' full back on run up in sand + looking as trip off top 10' Ft. and reapproach

90'-~~92~~ 92.5 same as above

92.5-95 same / shell

95-100 green grey clay w/ shell
→

Refer to Mobile Book
 106 # 27

Doug Ketter Buried
 407-790-0205

CURVE TABLES

HOW TO USE CURVE TABLES

Table I. contains Tangents and External to a 1° curve. Tan. and Ext. to any other radius may be found nearly enough, by dividing the Tan. or Ext. opposite the given Central Angle by the given degree of curve.

To find Deg. of Curve, having the Central Angle and Tangent: Divide Tan. opposite the given Central Angle by the given Tangent.

To find Deg. of Curve, having the Central Angle and External: Divide Ext. opposite the given Central Angle by the given External.

To find Nat. Tan. and Nat. Ex. Sec. for any angle by Table I.: Tan. or Ext. of twice the given angle divided by the radius of a 1° curve will be the Nat. Tan. or Nat. Ex. Sec.

EXAMPLE

Wanted a Curve with an Ext. of about 12 ft. Angle of Intersection or I. P. = 23° 20' to the R. at Station 542 + 72.

Ext. in Tab. I opposite 23° 20' = 120.87
 $120.87 \div 12 = 10.07$. Say a 10° Curve.

Tan. in Tab. I opp. 23° 20' = 1183.1
 $1183.1 \div 10 = 118.31$.

Correction for A. 23° 20' for a 10° Cur. = 0.16
 $118.31 + 0.16 = 118.47$ = corrected Tangent.

(If corrected Ext. is required find in same way)
 Ang. 23° 20' = $23.33^\circ \div 10 = 2.3333$ = L. C.

2° 19½' = def. for sta.	542	I. P. = sta.	542 + 72
4° 49½' = " " "	+ 50	Tan. =	1 18.47
7° 19½' = " " "	543	B. C. = sta.	541 + 53.53
9° 49½' = " " "	+ 50	L. C. =	2 33.33
11° 40' = " " "	543 +	E. C. = Sta.	543 + 86.86
	86.86		

$100 - 53.53 = 46.47 \times 3' (\text{def. for 1 ft. of } 10^\circ \text{ Cur.}) = 139.41' =$

2° 19½' = def. for sta. 542.

Def. for 50 ft. = 2° 30' for a 10° Curve.

Def. for 36.86 ft. = 1° 50½' for a 10° Curve.

