

**Photograph 1 Notes:**

Depicted is six inch increments marked out on the rod prior to collecting blow counts.

**Photograph 2 Notes:**

GSI team of Tinnell and Hopkins at location 21B-DS-LGIA-MW02 wearing Level D PPE.

**Photograph 3 Notes:**

Depicted is the lithology at split spoon interval of 42-44 ft. at location 21B-DS-LGIA-MW01

**Photograph 4 Notes:**

Tinnell and Hopkins of GSI shown mixing Portland cement and bentonite to create the cement grout seal at location 21B-DS-LGIA-MW02



Photograph 1 Notes:

First split spoon collected at location 21B-BB-UGIA-MW01 at interval 3.5-5.5ft.



Photograph 2 Notes:

Hard white clasts, approximately 0.75" diameter was recovered at 10' bgs in the borehole of 21B-BB-UGIA-MW01.

**Photograph 3 Notes:**

GSI's HSA Track rig set up on location 21B-BPA-UGIA-MW06

**Photograph 1 Notes:**

James Tinnell of GSI Engineering power washing hollow stem augers on the mobile decon station at location 21B-BPA-UGIA-MW06.

**Photograph 2 Notes:**

Roy Hopkins of GSI Engineering pouring sand down the hollow stem auger at well 21B-BPA-UGIA-MW05 for well construction



Photograph 3 Notes:

Seen here is the barbed wire fence that encloses Tract 21B and a metal deer blind that is within a 30ft. radius of well location 21B-BPA-LGIA-MW05



Photograph 4 Notes:

Well 21B-BPA-LGIA-MW05 freshly completed(except pad and bollards) with casing installed.

**Photograph 1 Notes:**

Wells at Tract 20B, 20B-UGIA-MW03 and 20B-LGIA-MW04, shown with newly cut pads and replaced bollards that were loose. Also the heavy rain throughout the night and morning made the terrain a quagmire.

**Photograph 2 Notes:**

Well 20B-LGIA-MW06 with freshly cut pads to comply with regulation specifications.

**Photograph 3 Notes:**

Well pad exposed to show pad is 8" thick as specified by the USACE.

**Photograph 1 Notes:**

The path into Tract 21B at the south gate looking north. Strong winds and driving rain can't be deduced from the picture.

**Photograph 2 Notes:**

Final water sample taken at well 21B-DS-LGIA-MW01.

**Photograph 3 Notes:**

Final water sample taken at well 21B-DS-UGIA-MW02.

**Photograph 4 Notes:**

Well development at wells 21B-DS-LGIA-MW01 and 21B-DS-UGIA-MW02. Shown is Xavier Chagolla of ATI hand surging a well and the Waterra Hydrolift 2 on the adjacent well.

**Photograph 5 Notes:**

Water sample taken at well 21B-BB-UGIA-MW01.



Photograph 1 Notes:

Stuart Cameron of ATI surging well 21B-DS-LGIA-MW04 in 2-6 inches of water.



Photograph 2 Notes:

YSI 556 handheld, Flow Thru cell, tubing, and well development log for well 21B-DS-LGIA-MW04.

**Photograph 3 Notes:**

Final water sample taken at 21B-DS-LGIA-MW04.

**Photograph 4 Notes:**

Final water sample taken at well 21B-DS-LGIA-MW03.

**Photograph 5 Notes:**

Final water sample taken at 21B-BPA-UGIA-MW06.

**Photograph 6 Notes:**

Final water sample taken at 21B-BPA-LGIA-MW05.

**Photograph 1 Notes:**

Three days of rain has made the path leading in Tract 21B a morass. ATI's truck stuck on the way to the location for developing wells on 5/21.

**Photograph 2 Notes:**

CME HSA Track rig towing the GSI Dodge truck towing ATI rental Ford Expedition to get to final development site at Tract 21B.

PHOTOGRAPH LOG

Date:

May 21, 2018

**Photograph 3 Notes:**

Final water sample taken at 21B-BPA-UGIA-MW02

**Photograph 4 Notes:**

Final water sample taken at 21B-BPA-LGIA-MW01

**Photograph 5 Notes:**

GSI team drilling bollard holes at Tract 21B-DS using the Bobcat and hydraulic powered auger. Roy Hopkins of GSI seen wearing appropriate Level D PPE.



Photograph 1 Notes:

GSI and ATI crews surface complete well 21B-DS-LGIA-MW03.



Photograph 2 Notes:

Well 21B-DS-LGIA-MW02 completed with concrete pad bollards and well lock

**Photograph 3 Notes:**

Head driller James Tinnell of GSI Engineering flattens the path leading into Tract 21B at the South Gate.



Photograph 1 Notes:

ATI groundwater sampling set up on well BKRD-UGIA-MW09



Photograph 2 Notes:

Two 1L Amber water samples at well BKRD-LGIA-MW09



Photograph 1 Notes:

ATI groundwater sampling set up on well BKRD-UGIA-MW06



Photograph 2 Notes:

Groundwater parameters are recorded on Purge Record Sheets at BKRD-UGIA-MW06



Photograph 1 Notes:

ATI groundwater sampling at two wells 21B-BPA-LGIA-MW07 and 21B-BPA-UGIA-MW08



Photograph 2 Notes:

The terrain is still very muddy at location 21B-DS. Xavier Chagolla(left) of ATI seem setting up on well 21B-DS-LGIA-MW04 and Stuart Cameron of ATI (right) setting up on existing well G0063.



Photograph 1 Notes:

ATI groundwater sampling two adjacent wells in 21B, 21B-DS-LGIA-MW02 and G0103.



Photograph 2 Notes:

Stuart Cameron of ATI drilling weep holes at well 21B-DS-LGIA-MW03.



Photograph 1 Notes:

Xavier Chagolla of ATI post-hole digging a bollard hole at Tract 20B.



Photograph 2 Notes:

Completed bollards at Tract 20B.

**Photograph 3 Notes:**

Brant Hylinski of ATI mixing concrete to set bollards in place



Photograph 1 Notes:

Groundwater sampling setup at well BKRD-LGIA-MW15



Photograph 2 Notes:

CHAAP site from Background Area 1 facing East.

**Photograph 3 Notes:**

Soil piles placed near new monitoring wells. Apparently they were used to protect the wells from vehicle traffic.

**Photograph 4 Notes:**

Buckets with sealable lids were used to store the purge water generated during groundwater sampling. At the end of each day, the buckets were emptied at the groundwater treatment facility.

**Photograph 1 Notes:**

ATI rental vehicle at BKRD about to unload equipment for groundwater sampling. The picture was taken looking Northwest.

**Photograph 2 Notes:**

Groundwater sampling equipment set up at well BKRD-UGIA-MW03

**Photograph 3 Notes:**

Stuart Cameron and Xavier Chagolla of ATI disposing of IDW at the USACE waste water facility. Both are donning Level D PPE.



Photograph 1 Notes:

James Tinnell and Roy Hopkins of GSI hand augering at location CHAAP-19B-SP-29B.



Photograph 2 Notes:

Soil samples from specified intervals are homogenized in plastic bags before placement into sample jars.

PHOTOGRAPH LOG

Date:

June 11, 2018

**Photograph 3 Notes:**

Hand augering in Tract 19B.



Photograph 1 Notes:

GSI drillers equipment set up on well 19C-LGIA-MW04



Photograph 2 Notes:

Splitspoon at interval 5.5-7.5ft for well 19C-UGIA-MW03

**Photograph 3 Notes:**

Wells 19C-UGIA-MW03 and 19C-LGIA-MW04 set in grout with orange casing



Photograph 1 Notes:

James Tinnell of GSI measuring water levels at well 19C-LGIA-MW06



Photograph 1 Notes:

GSI drillers HSA Track rig, bobcat, and mobile decon station set up on wells 19C-UGIA-MW01 and 19C-LGIA-MW02



Photograph 1 Notes:

James Tinnell of GSI using the Bobcat with powered auger drilling bollard holes at well 19C-LGIA-MW02



Photograph 2 Notes:

Two adjacent wells in 19C, UGIA-MW03 and LGIA-MW04.



Photograph 1 Notes:

Hanna Turbimeter, Flow-Thru cell, and YSI 556 Handheld prepared to take readings at well 19C-LGIA-MW04



Photograph 2 Notes:

Upon exit of gated areas, locks are secured to prevent unauthorized access.



Photograph 1 Notes:

The terrain of 21B heavily overgrown with ATI team groundwater sampling at adjacent wells PRGW01 and PRGW02



Photograph 2 Notes:

Brant Hylinski of ATI collecting VOCs in Tract 21B well PRGW02



Photograph 1 Notes:

ATI groundwater sampling set up on two adjacent wells in Tract 21B, BB-LGIA-MW02 & BB-UGIA-MW01



Photograph 2 Notes:

Stuart Cameron of ATI groundwater sampling at well 21B-DS-LGIA-MW06



Photograph 1 Notes:

Splitspoon at interval 10.5-12.5ft for well 20B-UGIA-MW10



Photograph 2 Notes:

Farmer's soybean field in Tract 20B where three proposed monitoring wells are to be drilled

**Photograph 3 Notes:**

Both teams of ATI and GSI setup on well 20B-UGIA-MW10



Photograph 1 Notes:

Dark and ominous clouds on Tuesday morning at Tract 20B draw our attention to the possibility of lightning strikes.



Photograph 2 Notes:

Brant Hylinski of ATI shown hand augering at location 20B-UGIA-MW09



Photograph 3 Notes:

GSI drillers set up on location 21B-BPA-LGIA-MW10 looking north-northeast from the farmer's field in Tract 21C



Photograph 4 Notes:

Split spoon collected at interval 43-45 ft. at well location 21B-BPA-LGIA-MW10

**Photograph 1 Notes:**

Split spoon collected at interval 38.5-40.5ft. at well location 19C-LGIA-MW07

**Photograph 2 Notes:**

Stuart Cameron of ATI and James Tinnell of GSI conversing about obstacles in the terrain at the edge of the farmer's field adjacent to well locations in Tract 21B Decanting station

**Photograph 3 Notes:**

Well 21B-DS-UGIA-MW11 setting in bentonite with the orange casing installed. This well will set overnight and be grouted in the morning.

**Photograph 1 Notes:**

Shown is well 21B-DS-UGIA-MW10 soon after completion of bentonite pouring. Grout will be mixed and poured two hours after the bentonite settles as per regulation standards.

**Photograph 2 Notes:**

Stuart Cameron of ATI collecting water level readings at two adjacent wells 21B-DS-UGIA-MW08 and 21B-DS-LGIA-MW09. Both wells are set in grout and awaiting surface completion.

**Photograph 3 Notes:**

GSI drillers equipment set up on two adjacent wells 21B-BB-UGIA-MW03 and 21B-BB-LGIA-MW04. The local flora has reached waist height and has flourished in the summer months.

**Photograph 1 Notes:**

Storm clouds and lightning strikes(not captured) on the horizon moving from west to east halted work on two occasions while completing drilling on well 21B-BB-LGIA-MW04.

**Photograph 2 Notes:**

GSI drillers James Tinnell and Roy Hopkins seen mixing grout for coupled wells 21B-BB-UGIA-MW03 and 21B-BB-LGIA-MW04.

**Photograph 3 Notes:**

Dense vegetation surrounds well 21B-BPA-UGIA-MW12 making it difficult to traverse the terrain and set up drilling equipment

**Photograph 1 Notes:**

GSI drillers James Tinnell and Roy Hopkins drilling in the planted soybean field at location 21B-BPA-UGIA-MW11. Both are doing appropriate Level D PPE.

**Photograph 2 Notes:**

Well 21B-BPA-UGIA-MW11 shown recently completed and waiting for bentonite to set. Attached to the well is a fiberglass marking stick with surveying tape to enhance visibility.