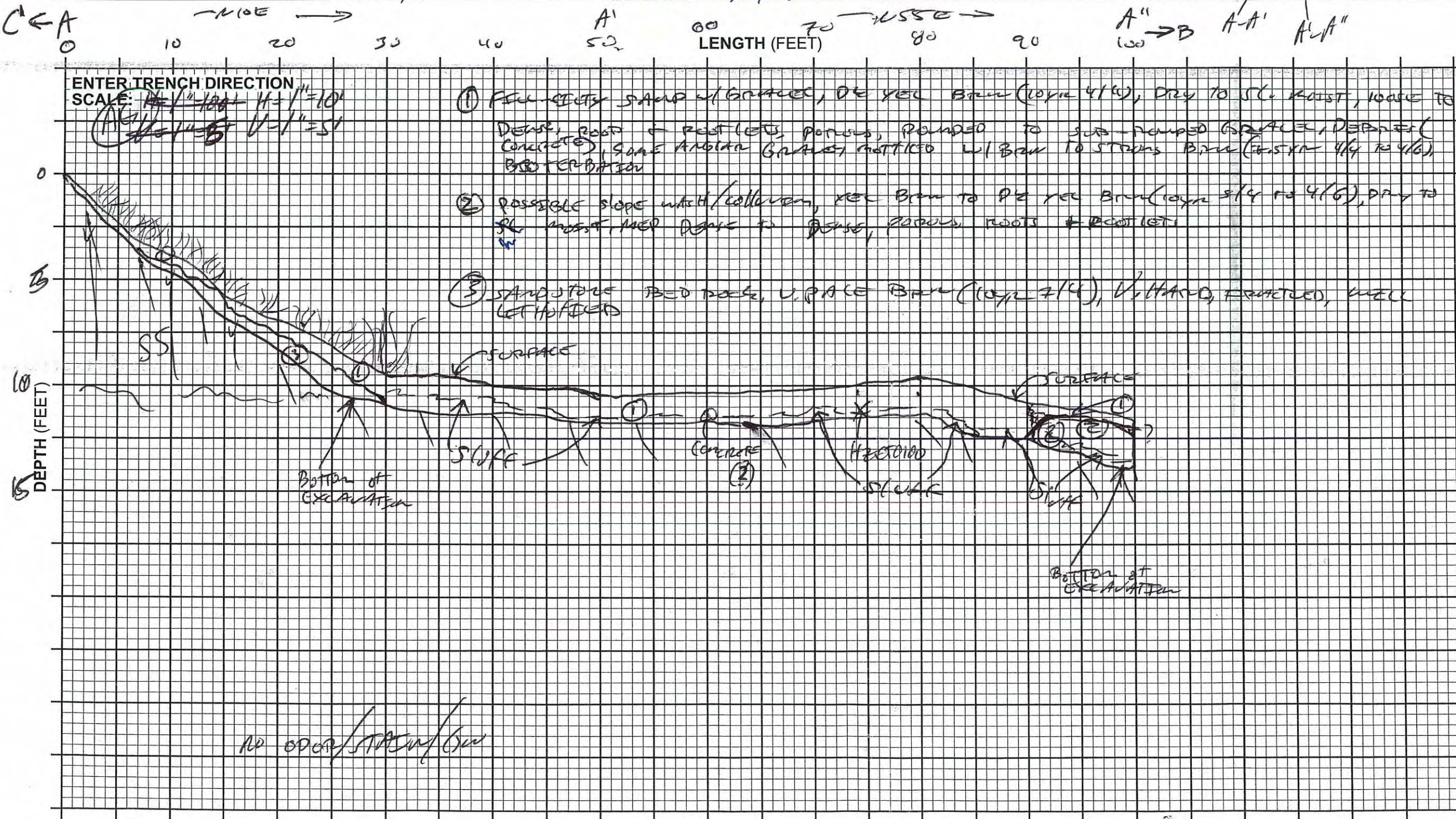
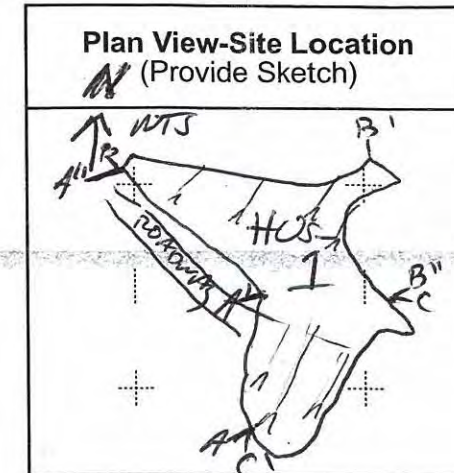


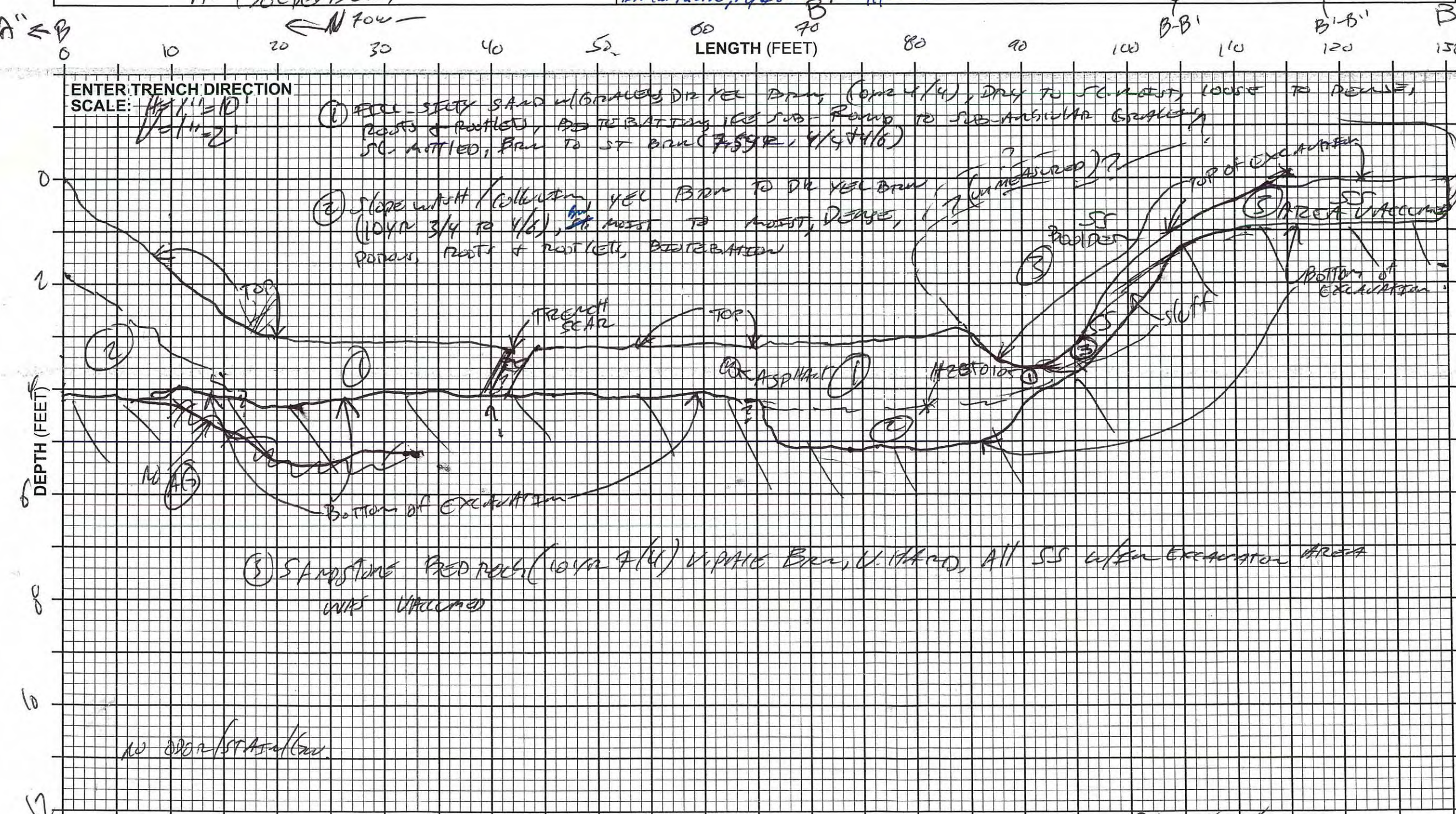
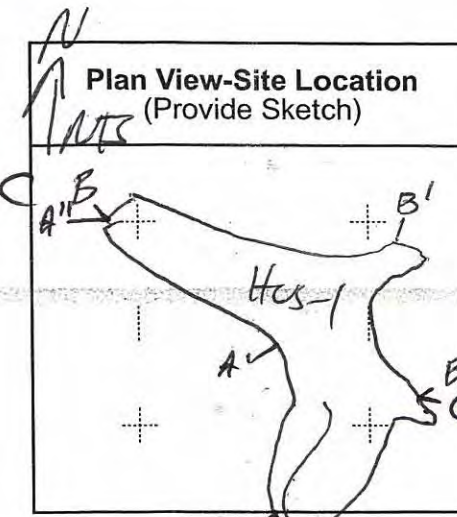
Project Name ISRA - OUT PAH 008 SSEC				FIELD TRENCH LOG A-A'-A''			
Trench Number HUS-1 H2T50199		Project Number MA		Elevation and Datum NA		Location HUS- H25-2	
Equipment Supplier MPE		Operator DAVE WILMER		Date and Time Started 11/2/09		Date and Time Completed NO NOT 11/2/09	
Equipment Type CAK 322C		Trench Orientation A-A'-N10E 1-A'-N55W		Total Depth 4		Refusal? (Circle One) Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> AREAS w/ REFUSAL	
Bucket Width 4'		Trench Length 200		Trench Width EXCAVATION		Photo? (Circle One) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	
Geologist or Hydrogeologist/Date A. Goldenberry				No. of Samples 1		Bulk 0	
				Grab 1		Drive 0	
				Hand Auger 0		% Man-Made Debris AGG - 2%	
				Checked by/Date B. Martasin, PG #8356 11/23/09		Wall of Trench Shown (Circle One) N <input type="checkbox"/> S <input type="checkbox"/> E <input type="checkbox"/> W <input checked="" type="checkbox"/> NE <input type="checkbox"/> NW <input type="checkbox"/> SE <input type="checkbox"/> SW <input type="checkbox"/>	



- EXPLANATION**
- SOIL TYPE CONTACT (SHARP)
 - OTHER CONTACT (AS INDICATED ON LOG)
 - FILL/NATIVE BOUNDARY
 - X** ANALYTICAL SAMPLE LOCATION (WRITE SAMPLE NUMBER OUT TO SIDE)
 - G** GEOTECHNICAL SAMPLE LOCATION (WRITE SAMPLE NUMBER OUT TO SIDE)
 - SHADING TO DENOTE STAINING
 - BASE OF EXCAVATION
 - SHOW LOCATIONS AND TYPES OF ALL MAJOR DEBRIS
- 2** - UNSURE
U - VEGETATION

* SAMPLE STAKE LOCATION HAS BEEN MOVED FROM PLASTIC COVER OVER THE EXCAVATION DUE TO RAIN.

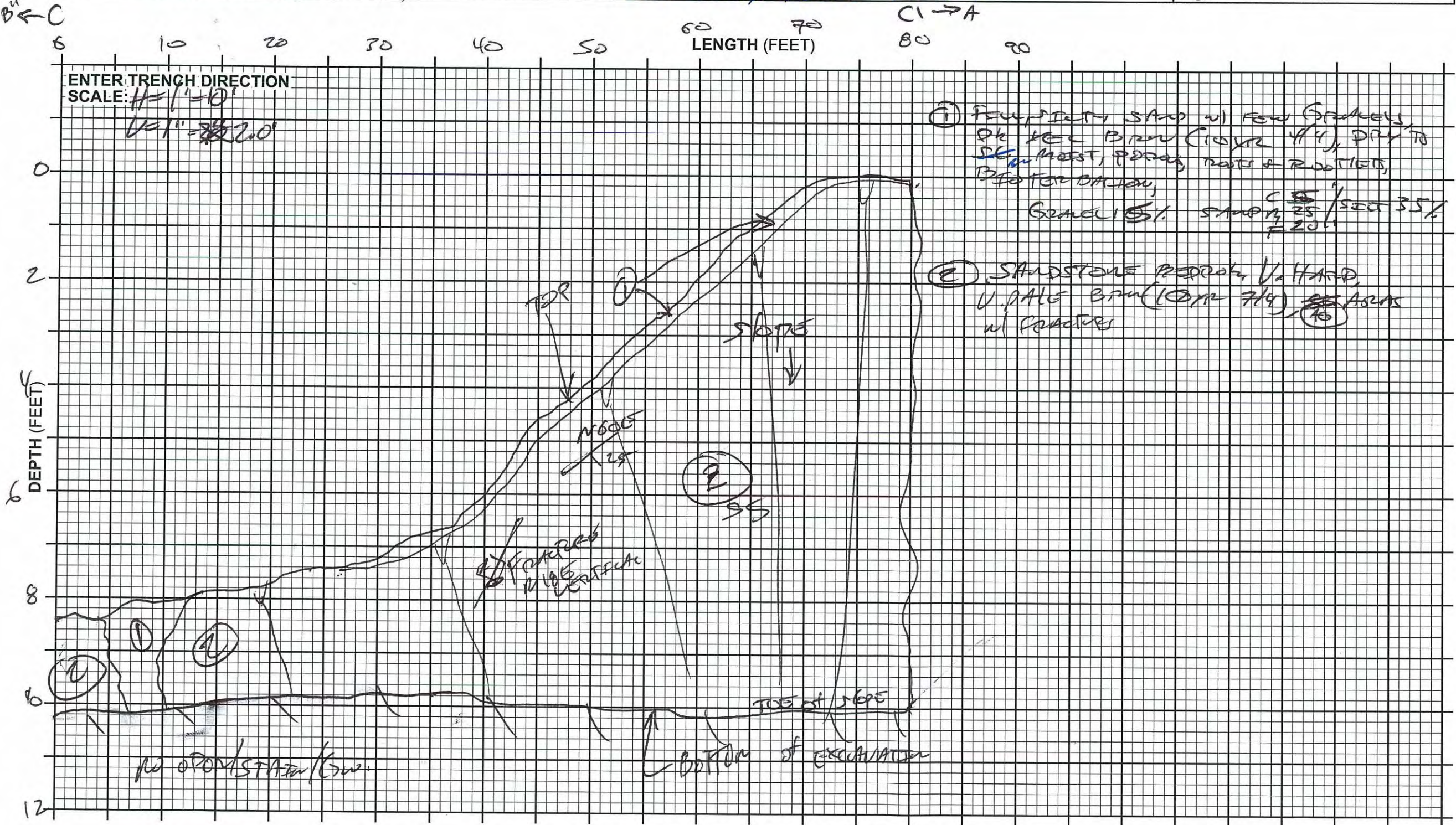
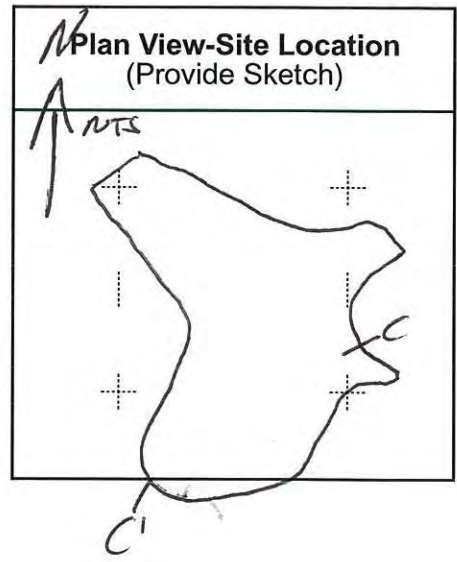
Project Name ISRA OUTFALL 008-SSFL			FIELD TRENCH LOG B-B'-B''			
Trench Number H25 by H2T50199	Project Number MA	Elevation and Datum NA	Location H25-1	Sheet 1 of 1		
Equipment Supplier MPE	Operator DAVE WILSON	Date and Time Started 11/21/09	Date and Time Completed 11/21/09	Refusal? (Circle One) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	If Yes, Depth = AREA w/ REFUSAL	
Equipment Type CAT 322C	Trench Orientation B-B'-B''-VARIABLES	Total Depth 2.5	Total Number of Samples 1 (H250105)	Photo? (Circle One) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No. AREA w/ REFUSAL	
Bucket Width 4'	Trench Length 130	Trench Width EXCAVATION	No. of Samples 1	Bulk <input checked="" type="checkbox"/>	Grab <input type="checkbox"/>	
Geologist or Hydrogeologist/Date A. GOLDENBERG		Checked by/Date B. Mantara, PG#8356, 11/23/09		Wall of Trench Shown (Circle One) <input checked="" type="checkbox"/> N <input type="checkbox"/> S <input type="checkbox"/> E <input type="checkbox"/> W <input type="checkbox"/> NE <input type="checkbox"/> NW <input checked="" type="checkbox"/> SE <input type="checkbox"/> SW		



- EXPLANATION**
- SOIL TYPE CONTACT (SHARP)
 - OTHER CONTACT (AS INDICATED ON LOG)
 - FILL/NATIVE BOUNDARY
 - ANALYTICAL SAMPLE LOCATION (WRITE SAMPLE NUMBER OUT TO SIDE)
 - GEOTECHNICAL SAMPLE LOCATION (WRITE SAMPLE NUMBER OUT TO SIDE)
 - SHADING TO DENOTE STAINING
 - BASE OF EXCAVATION
 - SHOW LOCATIONS AND TYPES OF ALL MAJOR DEBRIS
- ∇ = VEGETATION
 ? = UP DOWN

*SAMPLE STAKES ARE MOVED OR ARE OUT OF PLACE DUE TO PLASTIC COVER FROM RAIN EVENT

Project Name ISRA OJPAI 008-SFL				FIELD TRENCH LOG C-C'				
Trench Number HUS-1 HZTS0199		Project Number NA		Elevation and Datum NA		Location HUS-1		
Equipment Supplier MPE		Operator DAVE WELMER		Date and Time Started 11/2/09		Date and Time Completed 11/2/09		
Equipment Type CAT 322C		Trench Orientation C-C' - VERT		Total Depth 2.5		Total Number of Samples 0		
Bucket Width 4'	Trench Length 290	Trench Width EXCAVATION	No. of Samples 0	Bulk 0	Grab 0	Drive 0	Hand Auger 0	
Geologist or Hydrogeologist/Date A. GOLDENBERG			Checked by/Date B. Martasrn, PG 8356 11/23/09				Refusal? (Circle One) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No AREA IN REFUSAL If Yes Depth = REFUSAL	
							Photo? (Circle One) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No N/A	
							% Man-Made Debris 0	
							Wall of Trench Shown (Circle One) N <input checked="" type="checkbox"/> S <input type="checkbox"/> E <input type="checkbox"/> W <input type="checkbox"/> NE <input type="checkbox"/> NW <input checked="" type="checkbox"/> SE <input type="checkbox"/> SW	



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 - FILL/NATIVE BOUNDARY
 - ANALYTICAL SAMPLE LOCATION (WRITE SAMPLE NUMBER OUT TO SIDE)
 - GEOTECHNICAL SAMPLE LOCATION (WRITE SAMPLE NUMBER OUT TO SIDE)
 - SHADING TO DENOTE STAINING
 - BASE OF EXCAVATION
 - SHOW LOCATIONS AND TYPES OF ALL MAJOR DEBRIS



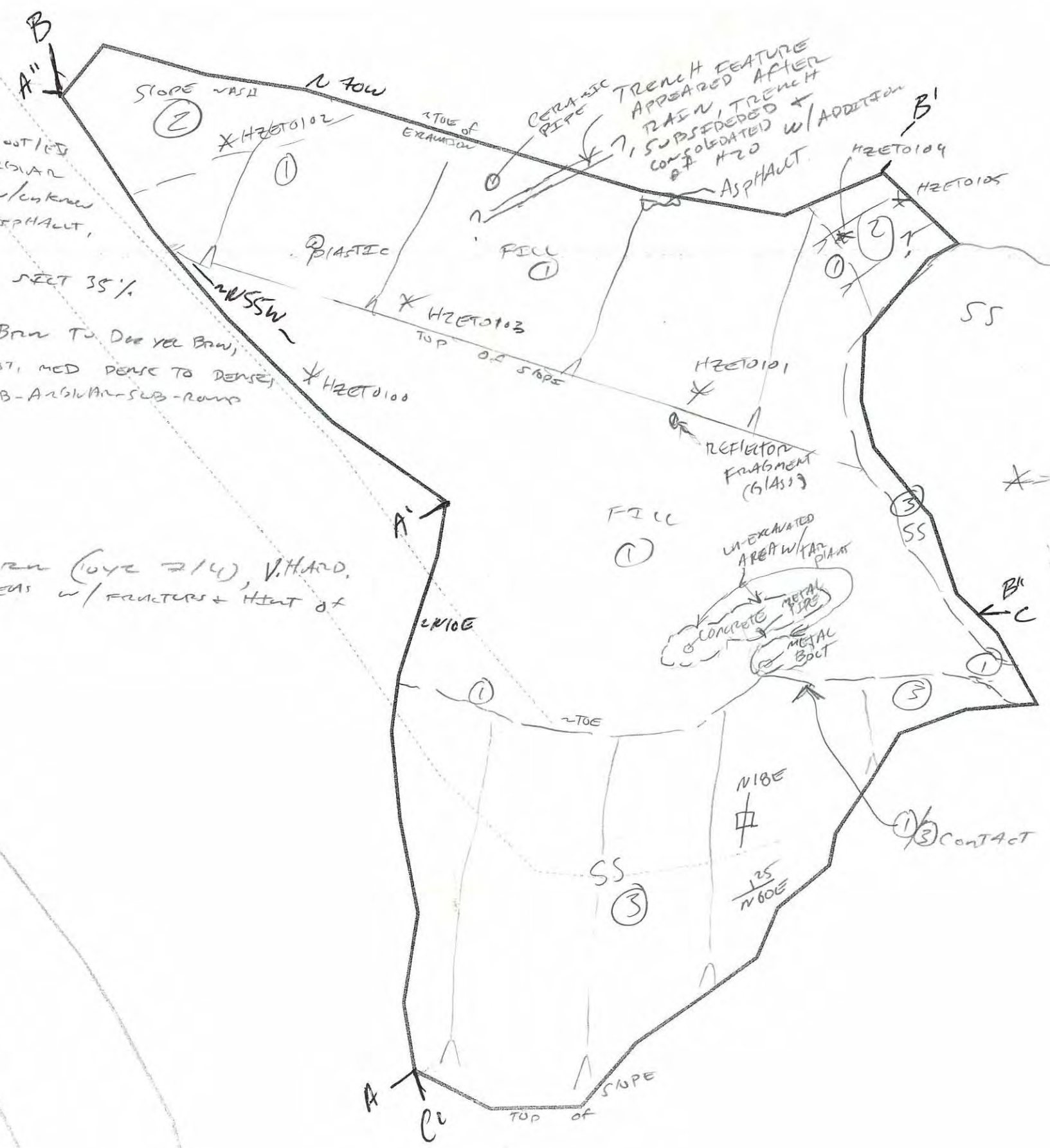
① - FILL - SILTY SAND w/ FEW GRAVELS, DR YEL BRN, (loze 4/4), DRY TO SL. MOIST, POROUS ROOTS + ROOTLETS (GRAVELS), MINOR DEBRIS (TRENCH w/ unknown w/str), GLASS REFLECTOR FRAGMENT, ASPHALT, CERAMIC PIPE, PLASTIC, METAL, CONCRETE, GRAVELS, 15%.

C	SAND	5	SECT	35%
A	SAND	25		
B	SAND	20		

② POSSIBLE SLOPE WASH F (loze 5/4 TO 4/6), (collum), YEL BRN TO DR YEL BRN, ROOTS + ROOTLETS, POROUS, MINOR SUB-ANGULAR-SUB-ROUND GRAVELS, GLASS REFLECTOR FRAGMENT, ASPHALT, CERAMIC PIPE, PLASTIC, METAL, CONCRETE, GRAVELS, 15%.

C	SAND	10	SECT	35%
A	SAND	25		
B	SAND	25		

③ SANDSTONE BED ROCK + YEL BRN (loze 2/4), V. HARD, MASSIVE, WELL LITHIFIED, AREAS w/ FRACTURE + HINT OF BEDDING.



TOP V V = AREA SLOPED
BOTTOM V V = AREA SLOPED

? = unknown

③ = All SS. BEDROCK WHEN EXCAVATION WAS UNCOVERED

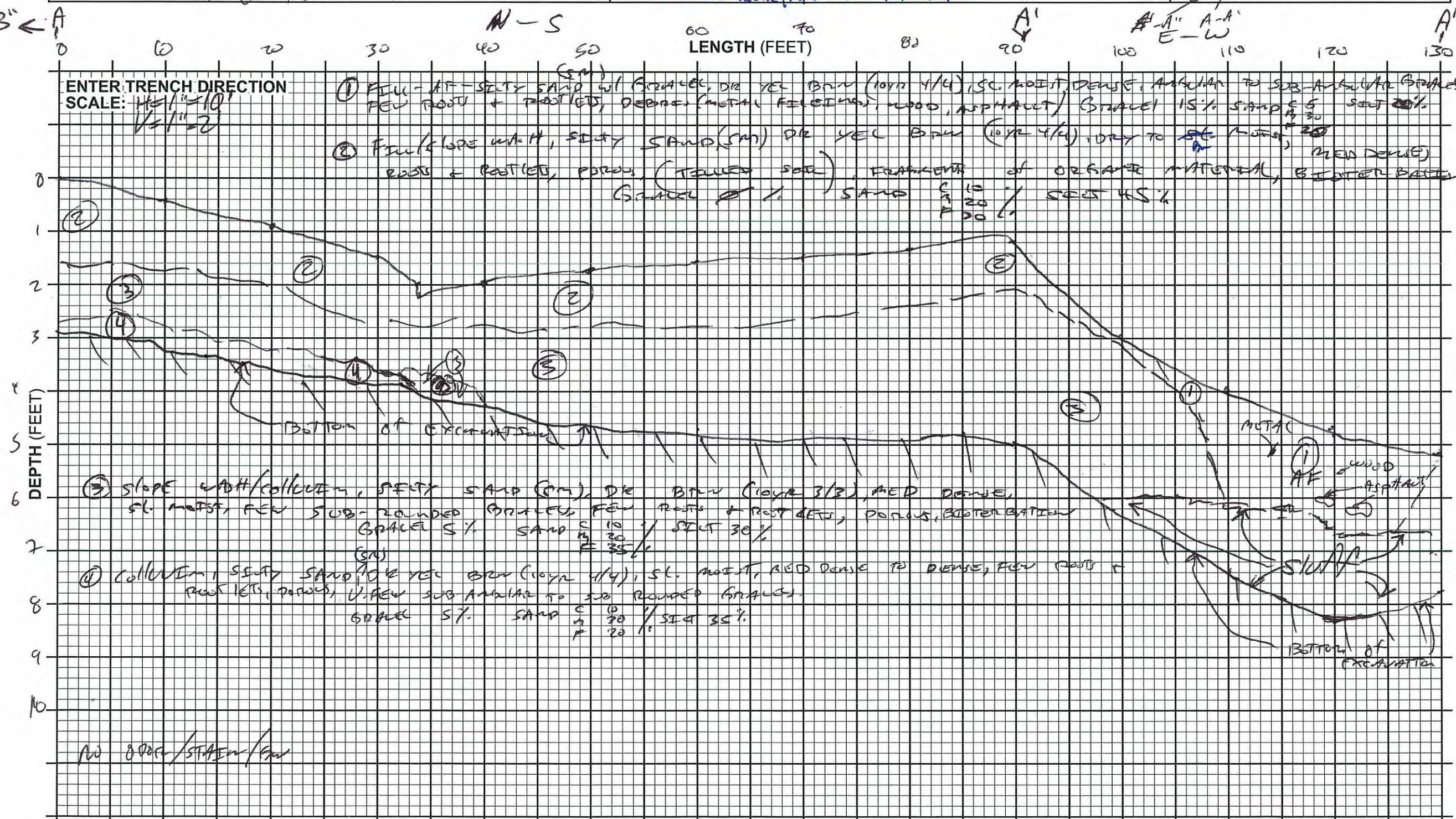
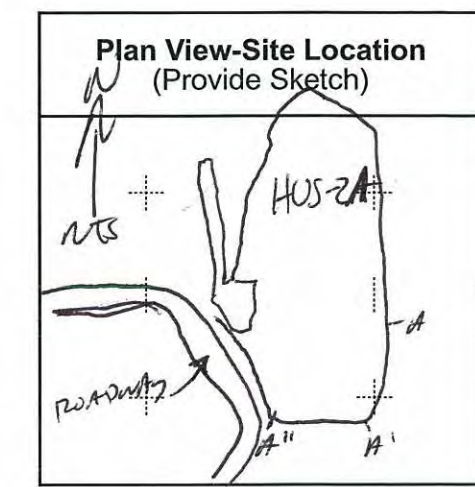
⊥ = VERTICAL FRACTURE

/ = BEDDING

* = STAKED LOCATIONS ARE MISSING OR MISSING DUE TO EXCAVATION BEING COVERED w/ PLASTIC DUE TO RAIN. UNSURE IF THE LOCATIONS ON THIS MAP ARE CORRECT.

A-A' A" } AREA of Geologic
B-B' B" } TRENCH LOGS.
C-C'

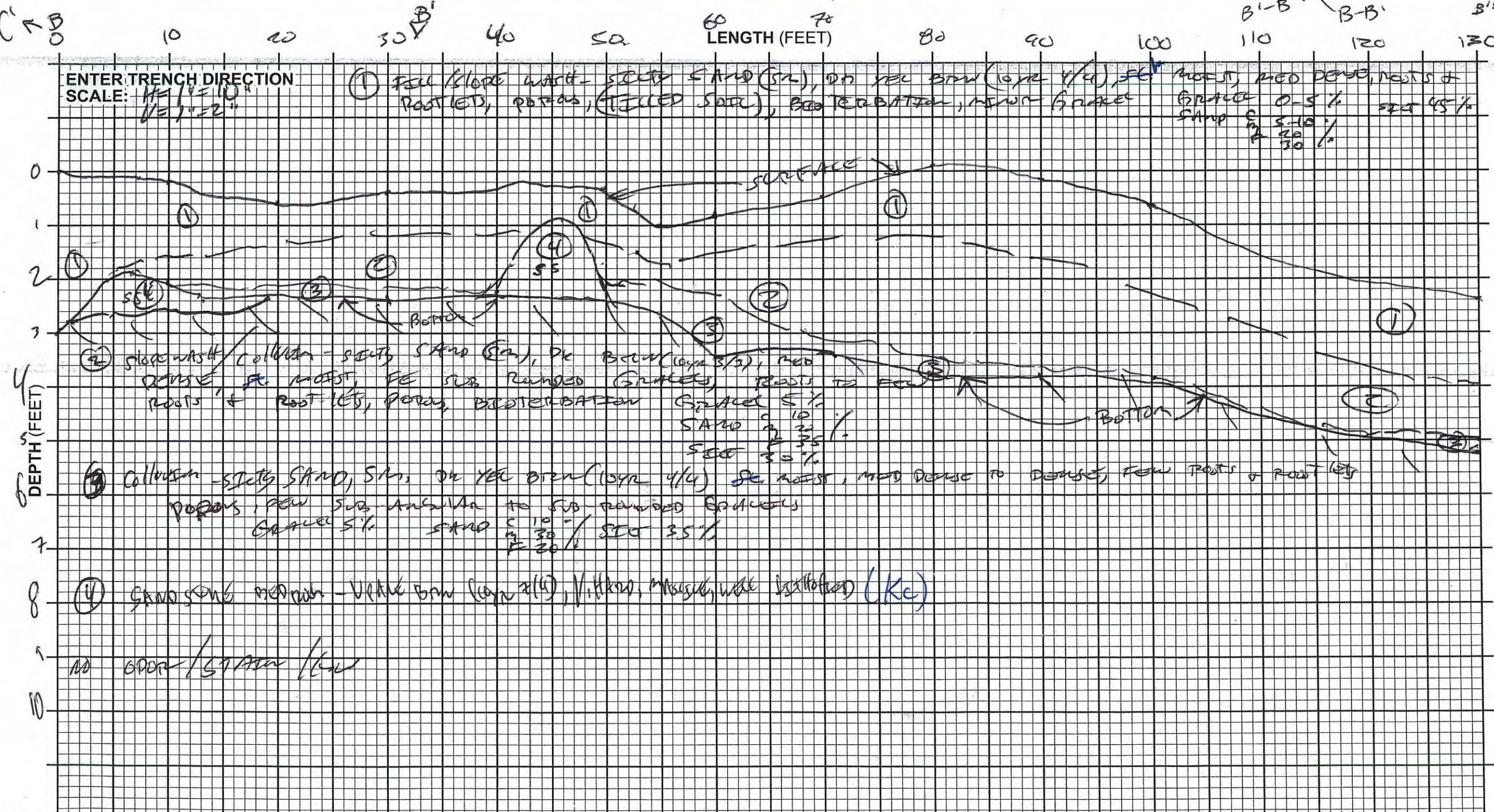
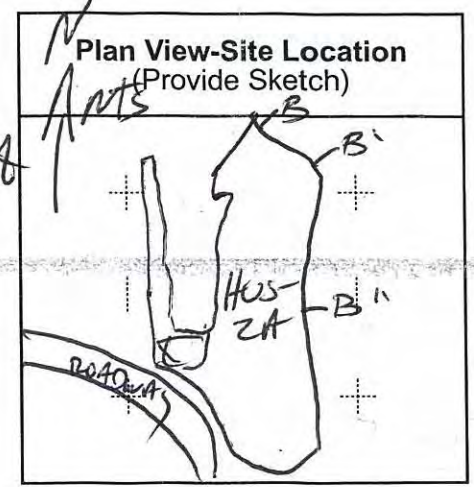
Project Name IS 2A OJFAH 008		FIELD TRENCH LOG A-A'-A''				
Trench Number HUS-2A HZTS0299	Project Number MA	Elevation and Datum NA	Location HUS-2A	Sheet 1 of 1	Refusal? (Circle One) Yes <input type="radio"/> No <input checked="" type="radio"/>	
Equipment Supplier MPE	Operator DAVE WILMER	Date and Time Started 11/3/09	Date and Time Completed 11/3/09	If Yes Depth =		
Equipment Type CAT 322 C	Trench Orientation A-A'-N/S A-A'-E/W	Total Depth ~4	Total Number of Samples NA *	Photo? (Circle One) Yes <input type="radio"/> No <input checked="" type="radio"/>		
Bucket Width 4'	Trench Length A-A'-130'	Trench Width EXCAVATION	No. of Samples NA	Bulk <input checked="" type="radio"/>	Grab <input type="radio"/>	
Geologist or Hydrogeologist/Date A. Odenberg		Checked by/Date B. Marbasin PG8356 11/2/09		Drive <input type="radio"/> Hand Auger <input type="radio"/>		
			Wall of Trench Shown (Circle One) N <input type="radio"/> W <input type="radio"/> NE <input type="radio"/> NW <input type="radio"/> SE <input type="radio"/> SW <input type="radio"/>			
			% Man-Made Debris 0-2%			



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 - G GEOTECHNICAL SAMPLE LOCATION (WRITE SAMPLE NUMBER OUT TO SIDE)
 - //// SHADING TO DENOTE STAINING
 - //// BASE OF EXCAVATION
 - SHOW LOCATIONS AND TYPES OF ALL MAJOR DEBRIS

* Sample station locations are missing/moved from plastic that covered the excavation during rain events.

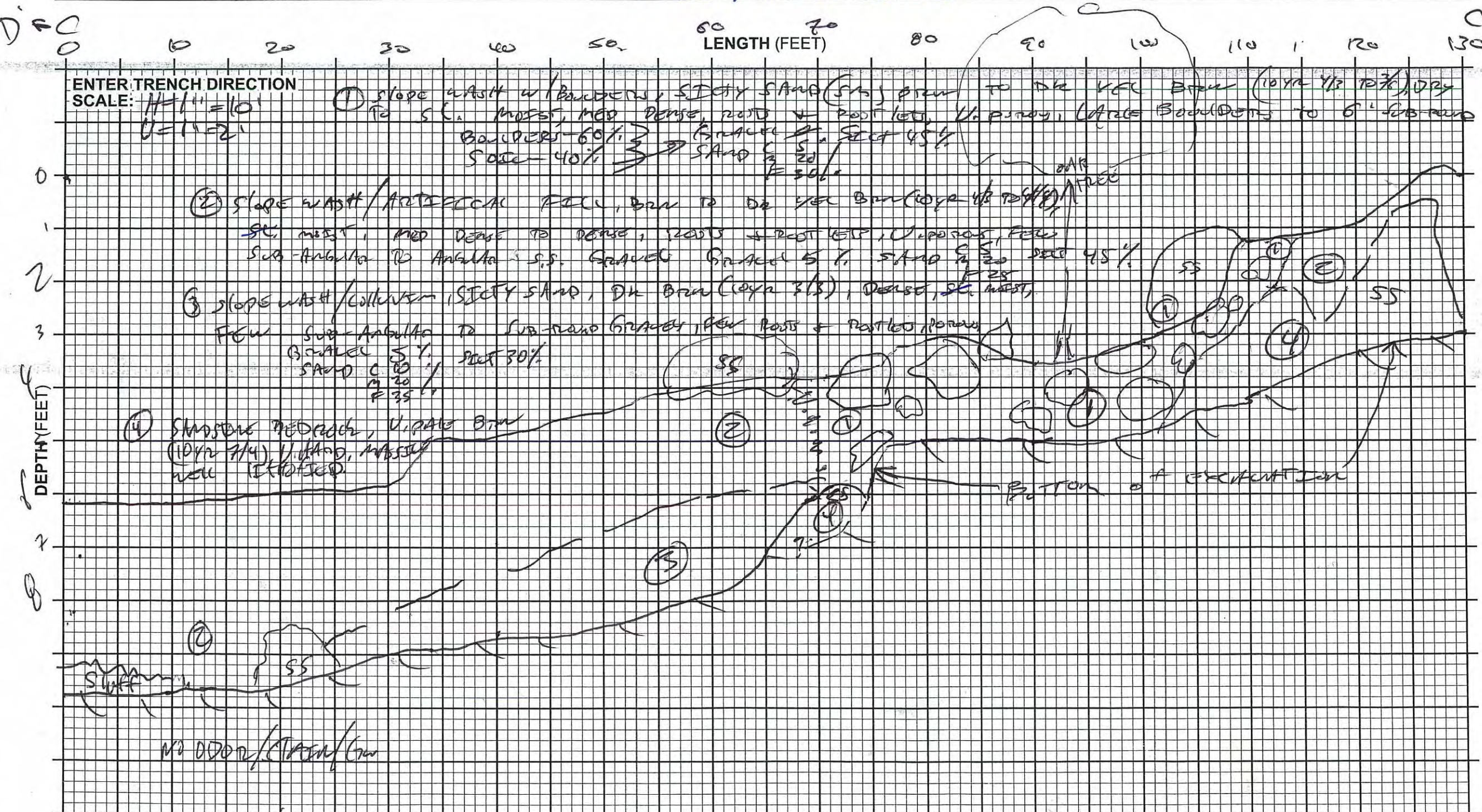
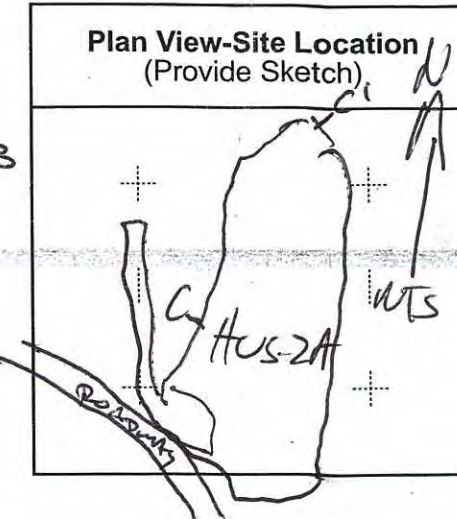
Project Name ISDA OUTFALL 008			FIELD TRENCH LOG				
Trench Number HUS-2A HZTS0299	Project Number NA	Elevation and Datum NA	Location HUS-2A	Sheet 1 of 1			
Equipment Supplier MPE	Operator D. A. JENSEN	Date and Time Started 11/3/09	Date and Time Completed 11/3/09	Refusal? (Circle One) <input checked="" type="radio"/> Yes <input type="radio"/> No NOTHERN AREA			
Equipment Type CAT 322 C	Trench Orientation B-B" NS + B-B" NW/SE	Total Depth 24'	Total Number of Samples NA *	Photo? (Circle One) <input checked="" type="radio"/> Yes <input type="radio"/> No NA			
Bucket Width 4'	Trench Length 130	Trench Width EXCAVATION	No. of Samples NA *	Bulk <input checked="" type="radio"/>	Grab NA	Drive <input checked="" type="radio"/>	
Geologist or Hydrogeologist/Date A. GARDENBERG		Checked by/Date D. Marbasin, DG 8/3/09 11/20/09			Hand Auger <input checked="" type="radio"/>		% Man-Made Debris <input checked="" type="radio"/>
			Wall of Trench Shown (Circle One) N <input checked="" type="radio"/> S <input type="radio"/> W <input checked="" type="radio"/> NE <input type="radio"/> NW <input type="radio"/> SE <input type="radio"/> SW				



- ### EXPLANATION
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 - FILL/NATIVE BOUNDARY
 - ANALYTICAL SAMPLE LOCATION (WRITE SAMPLE NUMBER OUT TO SIDE)
 - GEOTECHNICAL SAMPLE LOCATION (WRITE SAMPLE NUMBER OUT TO SIDE)
 - SHADING TO DENOTE STAINING
 - BASE OF EXCAVATION
 - SHOW LOCATIONS AND TYPES OF ALL MAJOR DEBRIS

* SAMPLE STAKED LOCATIONS ARE MISSING/MOVED DUE TO PLASTIC COVERING THE EXCAVATION DURING RAIN

Project Name ISRA OCT FALL 2008			FIELD TRENCH LOG C-C1			
Trench Number HUS-2A H2TS0299	Project Number NA	Elevation and Datum NA	Location HUS-2A	Sheet 1 of 1		
Equipment Supplier MPE	Operator DACE WILNER	Date and Time Started 11/3/09	Date and Time Completed 11/3/09	Refusal? (Circle One) Yes No	If Yes Depth = North Area	
Equipment Type CAT 322 E	Trench Orientation NE-SW	Total Depth 3.5	Total Number of Samples NA	Photo? (Circle One) Yes No	No. NA	
Bucket Width 4	Trench Length 130	Trench Width	No. of Samples Bulk 0 Grab NA	Drive 0	Hand Auger 0	
Geologist or Hydrogeologist/Date A. Gowenberg		Checked by/Date B. Mantasim, PG 8356 11/20/09		Wall of Trench Shown (Circle One) N S E W NE NW SE SW		

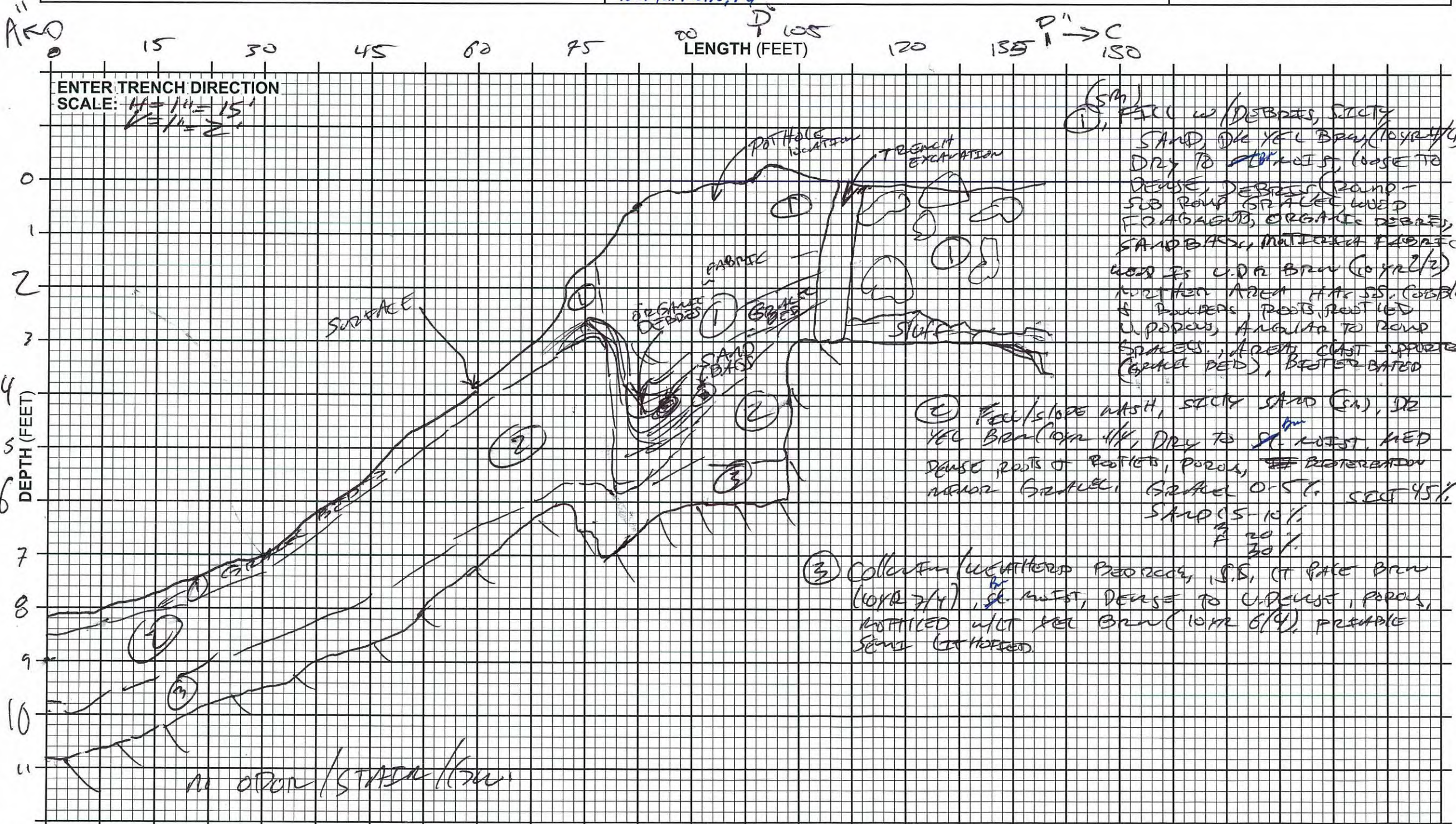
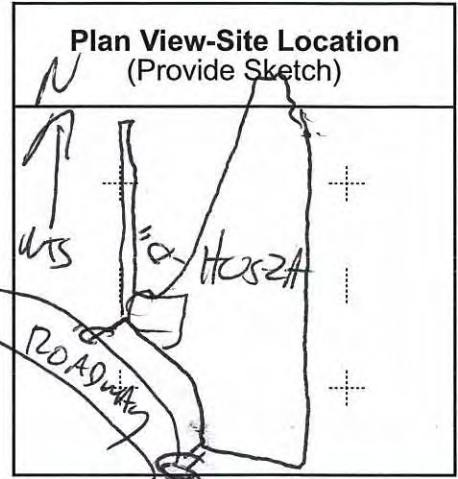


- EXPLANATION**
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 - - - OTHER CONTACT (AS INDICATED ON LOG)
 - - - FILL/NATIVE BOUNDARY
 - X ANALYTICAL SAMPLE LOCATION (WRITE SAMPLE NUMBER OUT TO SIDE)
 - G GEOTECHNICAL SAMPLE LOCATION (WRITE SAMPLE NUMBER OUT TO SIDE)
 - //// SHADING TO DENOTE STAINING
 - //// BASE OF EXCAVATION
 - SHOW LOCATIONS AND TYPES OF ALL MAJOR DEBRIS

* Samples stated locations are missing or moved due to plastic cover during rain

? on slope

Project Name ISRA OUTFALL 008				FIELD TRENCH LOG D-D'			
Trench Number HUS-2A H2T50299		Project Number NA		Elevation and Datum NA		Location HUS-2A	
Equipment Supplier MPE		Operator Dale Wanner		Date and Time Started 11/3/09		Date and Time Completed 11/3/09	
Equipment Type CAT 322C		Trench Orientation NW + SE / NE-SW		Total Depth 265		Total Number of Samples NA *	
Bucket Width 4'	Trench Length 2140	Trench Width EXCAVATION		No. of Samples X	Bulk 0	Grab X	Drive 0
Geologist or Hydrogeologist/Date A. Goldberger				Checked by/Date B. Markasin, PG		Refusal? (Circle One) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
						If Yes Depth =	
						Photo? (Circle One) Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
						% Man-Made Debris 10%	
						Wall of Trench Shown (Circle One) N <input type="checkbox"/> S <input type="checkbox"/> E <input type="checkbox"/> W <input type="checkbox"/> NE <input type="checkbox"/> NW <input type="checkbox"/> SE <input type="checkbox"/> SW <input type="checkbox"/>	

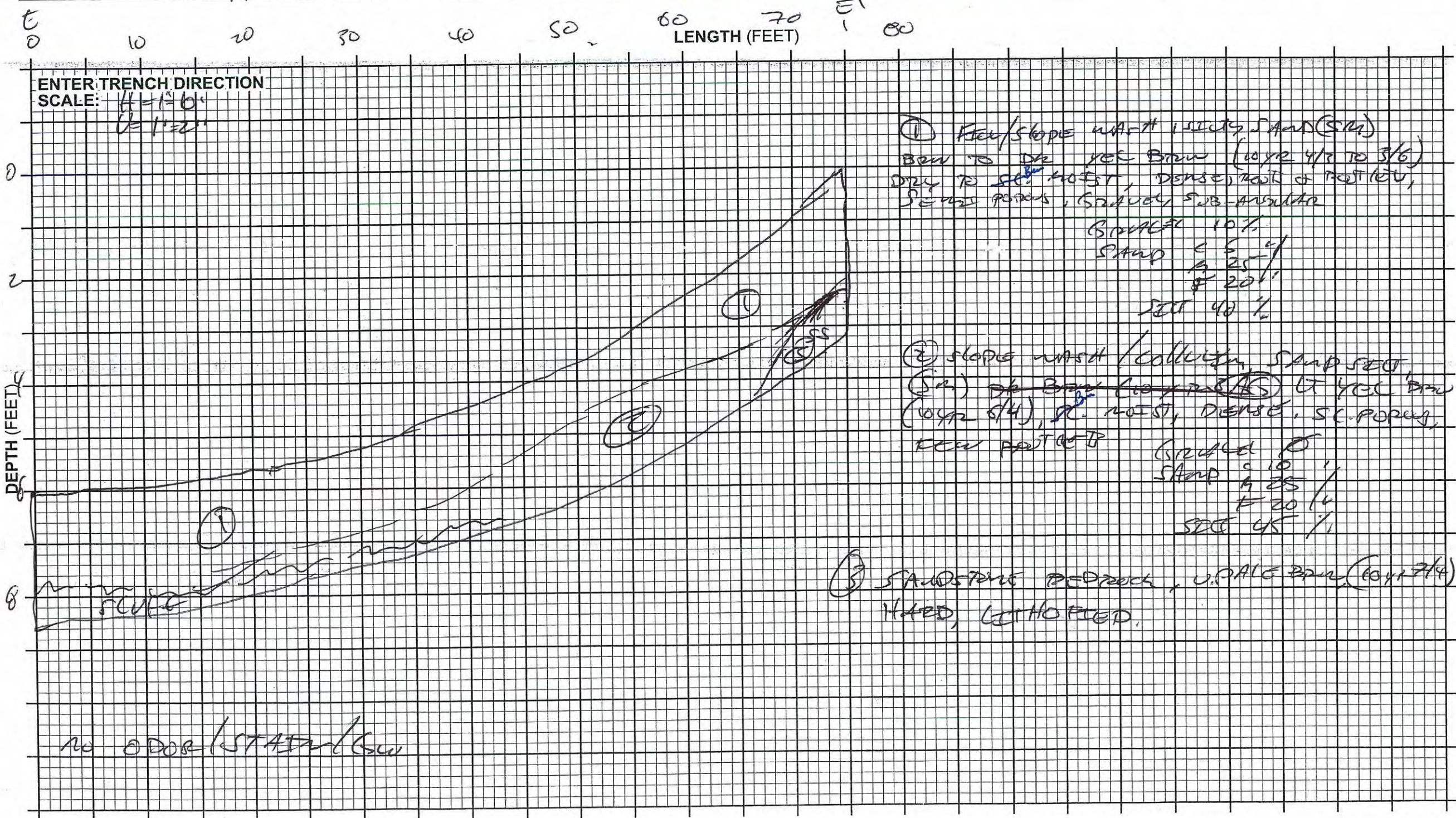
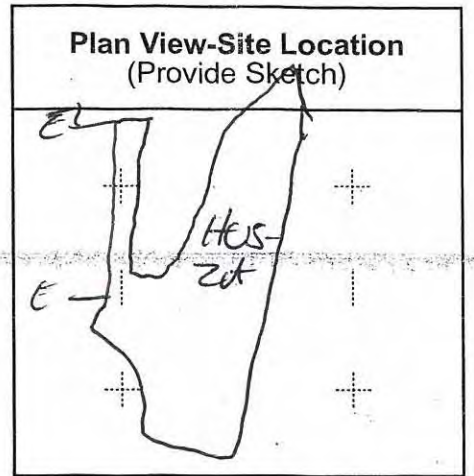


- EXPLANATION**
- SOIL TYPE CONTACT (SHARP)
 - - - - OTHER CONTACT (AS INDICATED ON LOG)
 - FILL/NATIVE BOUNDARY
 - X ANALYTICAL SAMPLE LOCATION (WRITE SAMPLE NUMBER OUT TO SIDE)
 - G GEOTECHNICAL SAMPLE LOCATION (WRITE SAMPLE NUMBER OUT TO SIDE)
 - //// SHADING TO DENOTE STAINING
 - //// BASE OF EXCAVATION
 - SHOW LOCATIONS AND TYPES OF ALL MAJOR DEBRIS

*SAMPLE STAGED LOCATIONS ARE MISSING OR MOVED DUE TO PLASTIC OVER EXCAVATION DURING RAIN.



Project Name ISRA OUTFALL 008			FIELD TRENCH LOG E-E'		
Trench Number HCS-2A HZTS0299 Trench	Project Number NA	Elevation and Datum NA	Location HCS-2A Trench	Sheet 1 of 1	Refusal? (Circle One) Yes No NOZT AREA
Equipment Supplier MDE	Operator DACE useman	Date and Time Started 11/3/09	Date and Time Completed	Photo? (Circle One) NA No.	Yes No
Equipment Type CAT 322 C	Trench Orientation N/E	Total Depth 3	Total Number of Samples 0*	% Man-Made Debris 0	
Bucket Width 4	Trench Length ~75	Trench Width ~4'	No. of Samples X	Bulk 0	Grab X
Geologist or Hydrogeologist/Date A. Golovinski		Checked by/Date B. Martasin, PG # 8356 11/20/09		Wall of Trench Shown (Circle One) N S E NE NW SE SW	



- EXPLANATION**
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 - G GEOTECHNICAL SAMPLE LOCATION (WRITE SAMPLE NUMBER OUT TO SIDE)
 - //// SHADING TO DENOTE STAINING
 - //// BASE OF EXCAVATION
 - SHOW LOCATIONS AND TYPES OF ALL MAJOR DEBRIS

* SAMPLE LOCATIONS MOVED OR MISSING FROM PLASTER COVERING EXCAVATION

HZE70200 5999
299
300

ISRA 008 EXCAVATIONS HVS-2A



① SILTY SAND (SM) SLOPE WASH w/ BOULDERS, BRN TO DK YEL BRN (10yr 4/3 TO 3/6), DRY TO st. MOIST, MED DENSE TO DENSE, SANDSTONE BOULDERS, ROOTS, ROOTLETS, U. POROUS, BOULDERS TO 6" SUB-ROUND
 Boulder 60% → GRAVEL 0%
 Sand 40% → SAND 20%
 Silt 45%

② SILTY SAND (SM) SLOPE WASH, BRN TO DK YEL BRN (10yr 4/5 TO 3/6), DRY TO st. MOIST, DENSE, ROOTS TO ROOTLETS, U. POROUS.
 GRAVEL - 0
 SAND 20%
 Silt - 45%

③ SLOPE WASH/COLLUVIUM, SILTY SAND, DK BRN (10yr 3/3), MED DENSE, st. MOIST, FEW SUB-ROUND GRAVELS, FEW ROOTS + ROOTLETS, POROUS
 GRAVEL 5%, SAND 20% Silt 30%
 F 35%

④ COLLUVIUM, SILTY SAND, DK YEL BRN (10yr 4/4), st. MOIST, MED DENSE TO DENSE, ROOTS + ROOTLETS, U. POROUS, FEW GRAVELS, SUB-ANGULAR TO SUB-ROUND, SEMI WEATHERED
 GRAVEL 5% SAND 20% Silt 35%
 F 20%

⑤ COLLUVIUM TO WEATHERED BEDROCK SANDSTONE (?) (LT PALE BRN (10yr 7/4) st. MOIST, DENSE TO U. DENSE, FEW POROUS MOTTLED w/ LT YEL BRN (10yr 6/4), FRIABLE WHEN DUG + BROKEN, SEMI WEATHERED
 SAND 10% Silt 35%
 F 20%

⑥ SANDSTONE BEDROCK, U. PALE BRN (10yr 7/4), HARD TO U. HARD, MASSIVE, WELL LITHIFIED (K_L)

Geologist: A. Goldenberg
Checked By/Date: B. Marasim; 11/20/09

210
42
88

① SILTSTONE TO FINE SANDSTONE BEDROCK,
 GRAY TO YEL TO LT YEL BRN (10yr 5/1 TO
 7/6 TO 6/4), HARD TO V. HARD, FRACTURED,
 THENALLY BEDDED

② SANDSTONE BEDROCK, U. PALE BRN (10yr 7/4),
 V. HARD, MASSIVE

ISRA 008 EXCAVATIONS
 HVS-2D



N 11/2/07

A-A'
 B-B'
 C-C'
 D-D' } GEOLOGIC X-SECTION
 LOCATION WITH
 EXCAVATION.
 X = BEDDING

