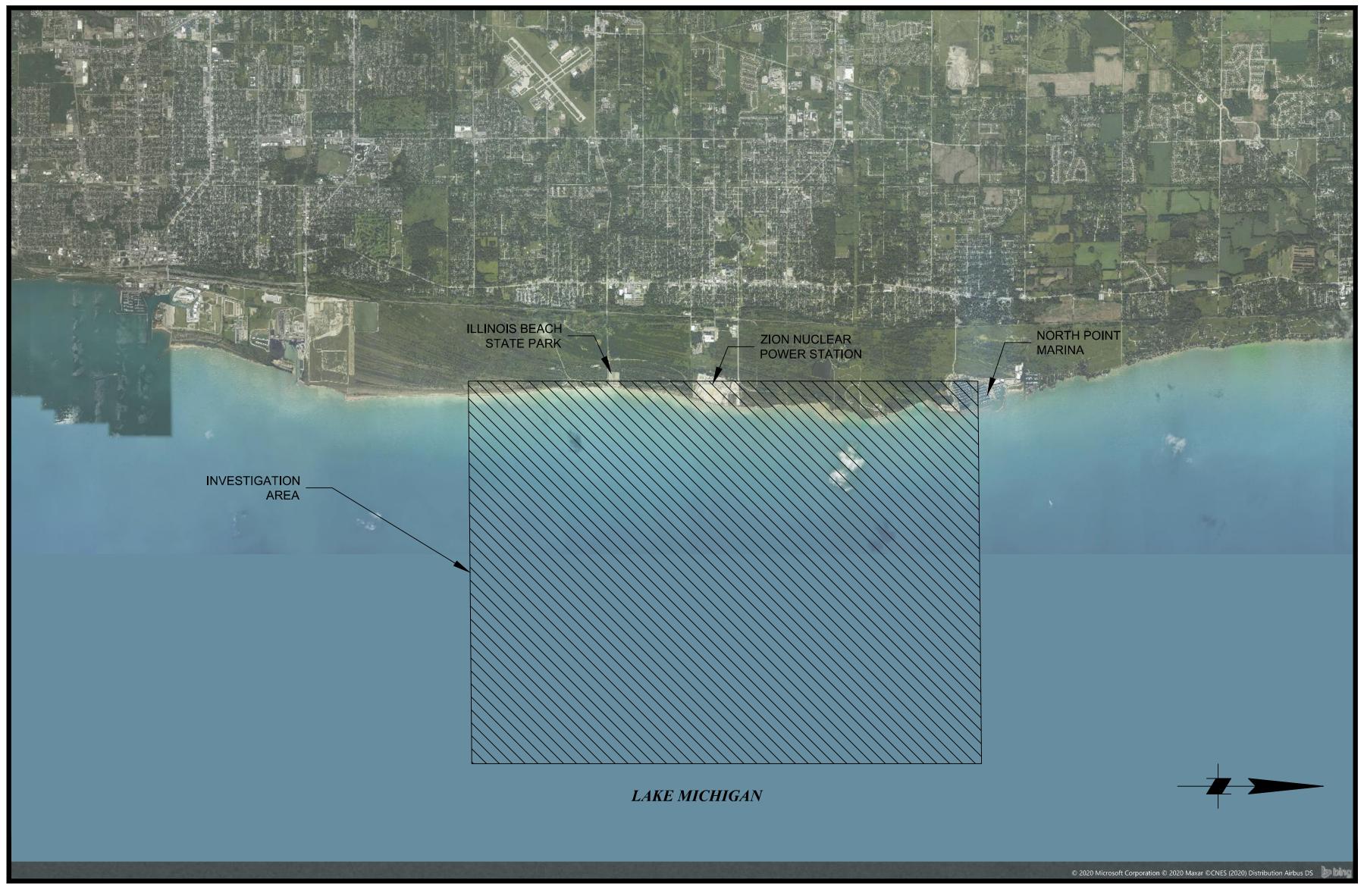
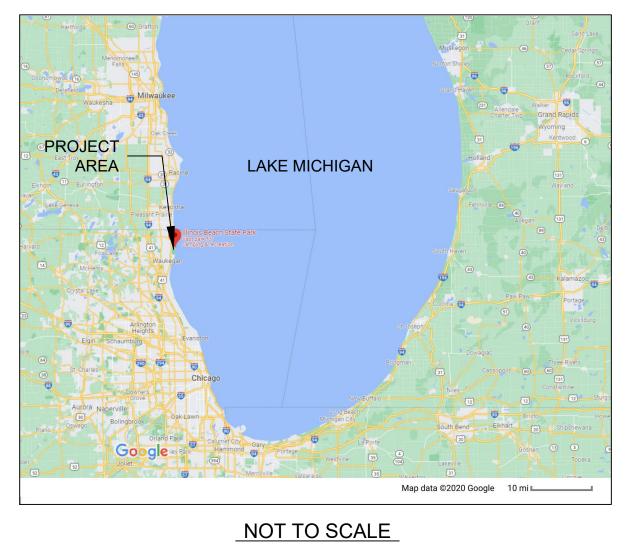
ILLINOIS BEACH STATE PARK SAND SOURCE SURVEY







ZION, IL

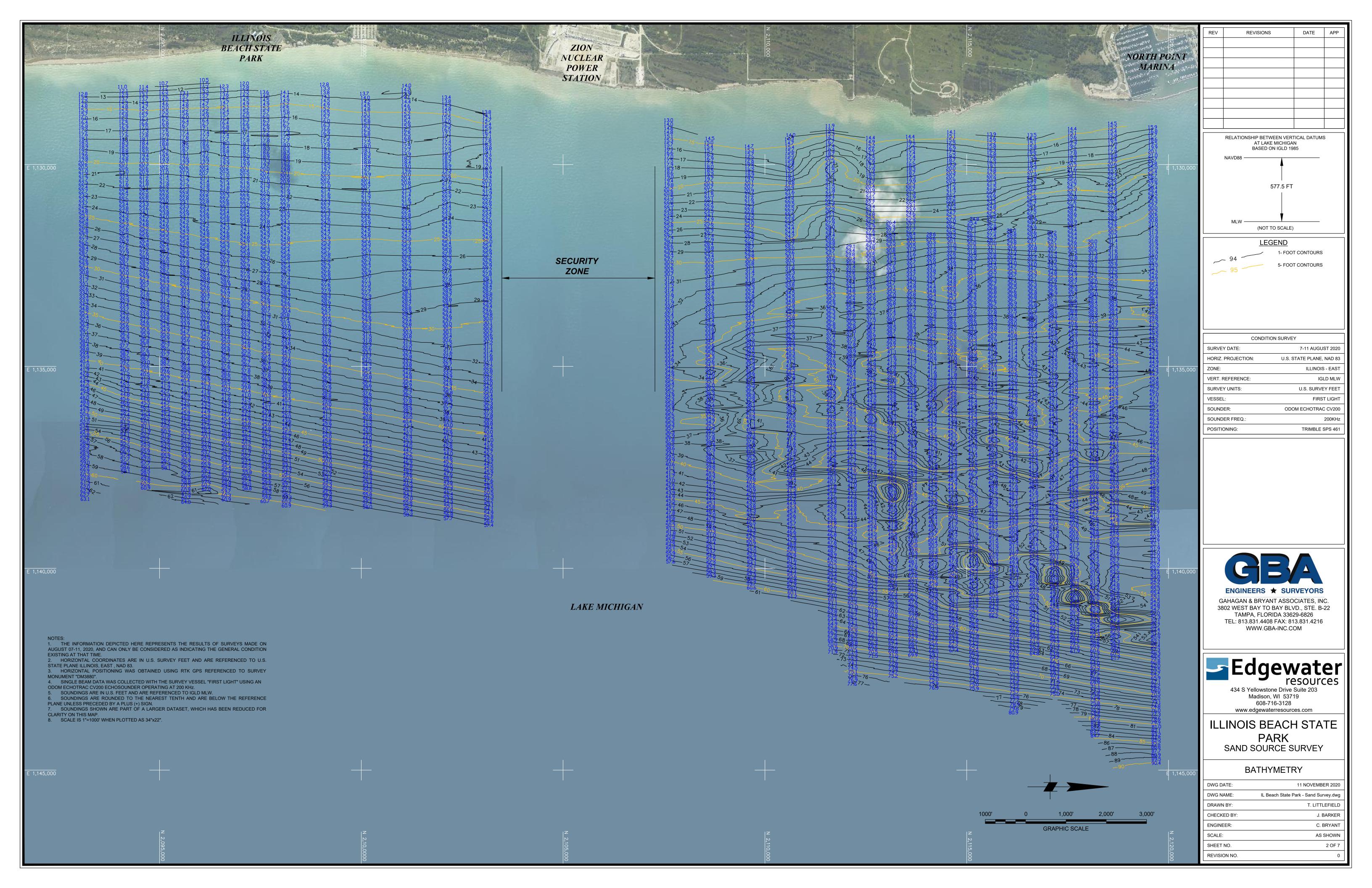
AUGUST 2020

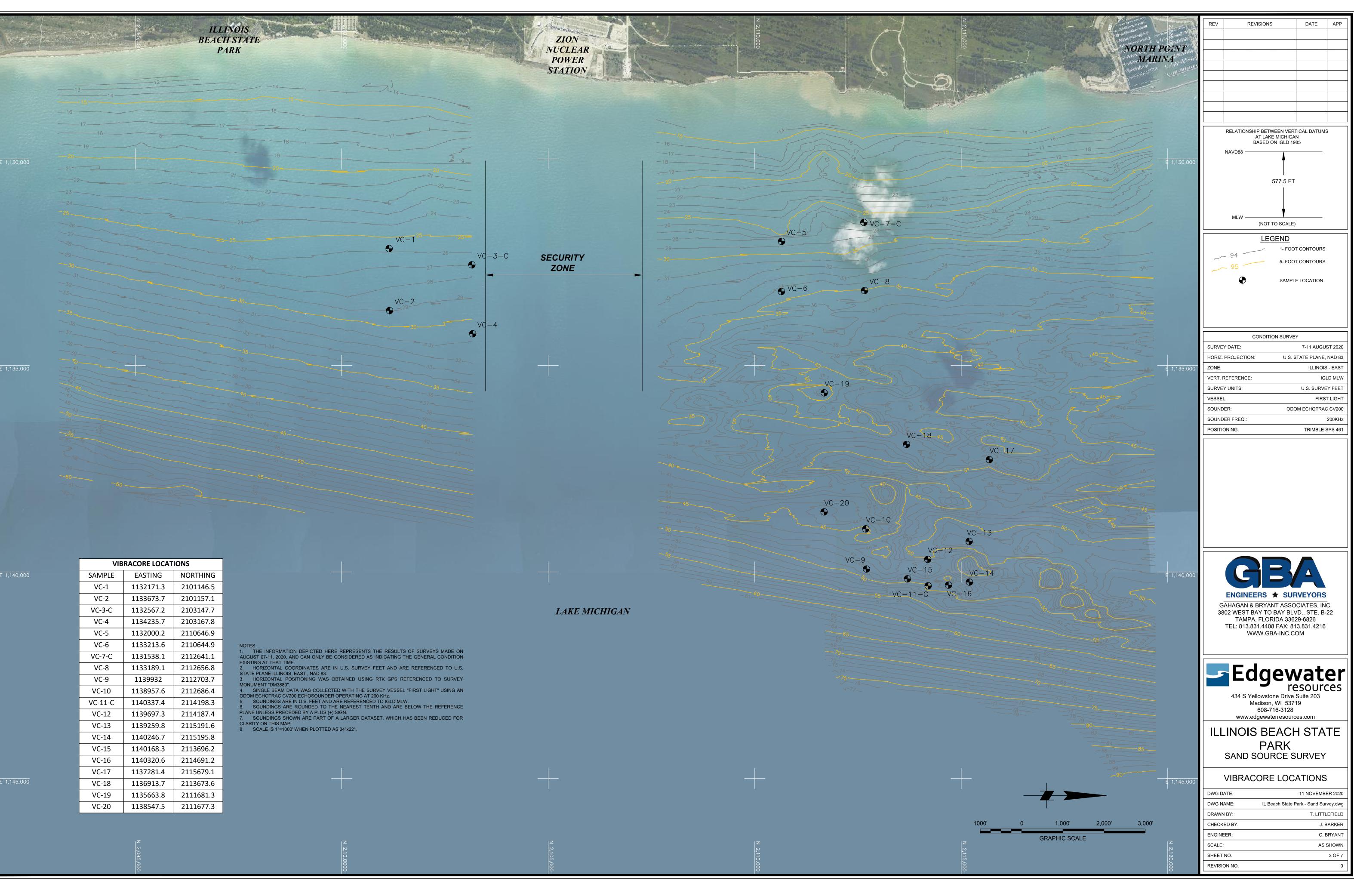


SHEET INDEX	
DESCRIPTION	SHEET NO.
COVER	1
BATHYMETRY AND SOUNDINGS	2
VIBRACORE LOCATIONS	3
GRAB & BEACH SAMPLE LOCATIONS	4
BORROW SITE OVERVIEW	5
POTENTIAL BORROW SITE	6
SECTION VIEWS	7



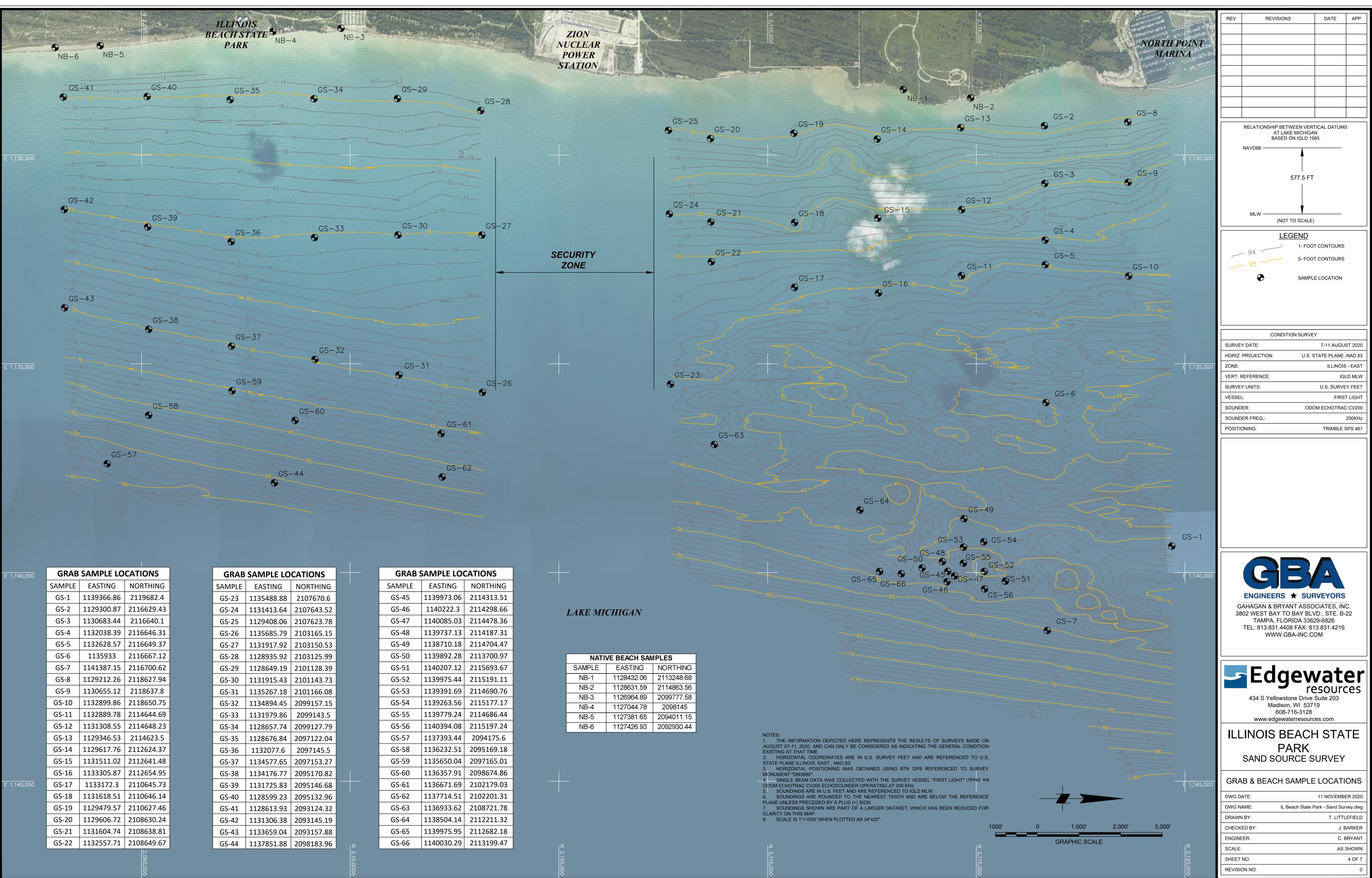
ENGINEERS ★ SURVEYORS GAHAGAN & BRYANT ASSOCIATES, INC. 3802 WEST BAY TO BAY BLVD., STE. B-22 TAMPA, FLORIDA 33629-6826 TEL: 813.831.4408 FAX: 813.831.4216 WWW.GBA-INC.COM





VIB	RACORE LOCAT	IONS
SAMPLE	EASTING	NORTHING
VC-1	1132171.3	2101146.5
VC-2	1133673.7	2101157.1
VC-3-C	1132567.2	2103147.7
VC-4	1134235.7	2103167.8
VC-5	1132000.2	2110646.9
VC-6	1133213.6	2110644.9
VC-7-C	1131538.1	2112641.1
VC-8	1133189.1	2112656.8
VC-9	1139932	2112703.7
VC-10	1138957.6	2112686.4
VC-11-C	1140337.4	2114198.3
VC-12	1139697.3	2114187.4
VC-13	1139259.8	2115191.6
VC-14	1140246.7	2115195.8
VC-15	1140168.3	2113696.2
VC-16	1140320.6	2114691.2
VC-17	1137281.4	2115679.1
VC-18	1136913.7	2113673.6
VC-19	1135663.8	2111681.3
VC-20	1138547.5	2111677.3

E 1,145,000

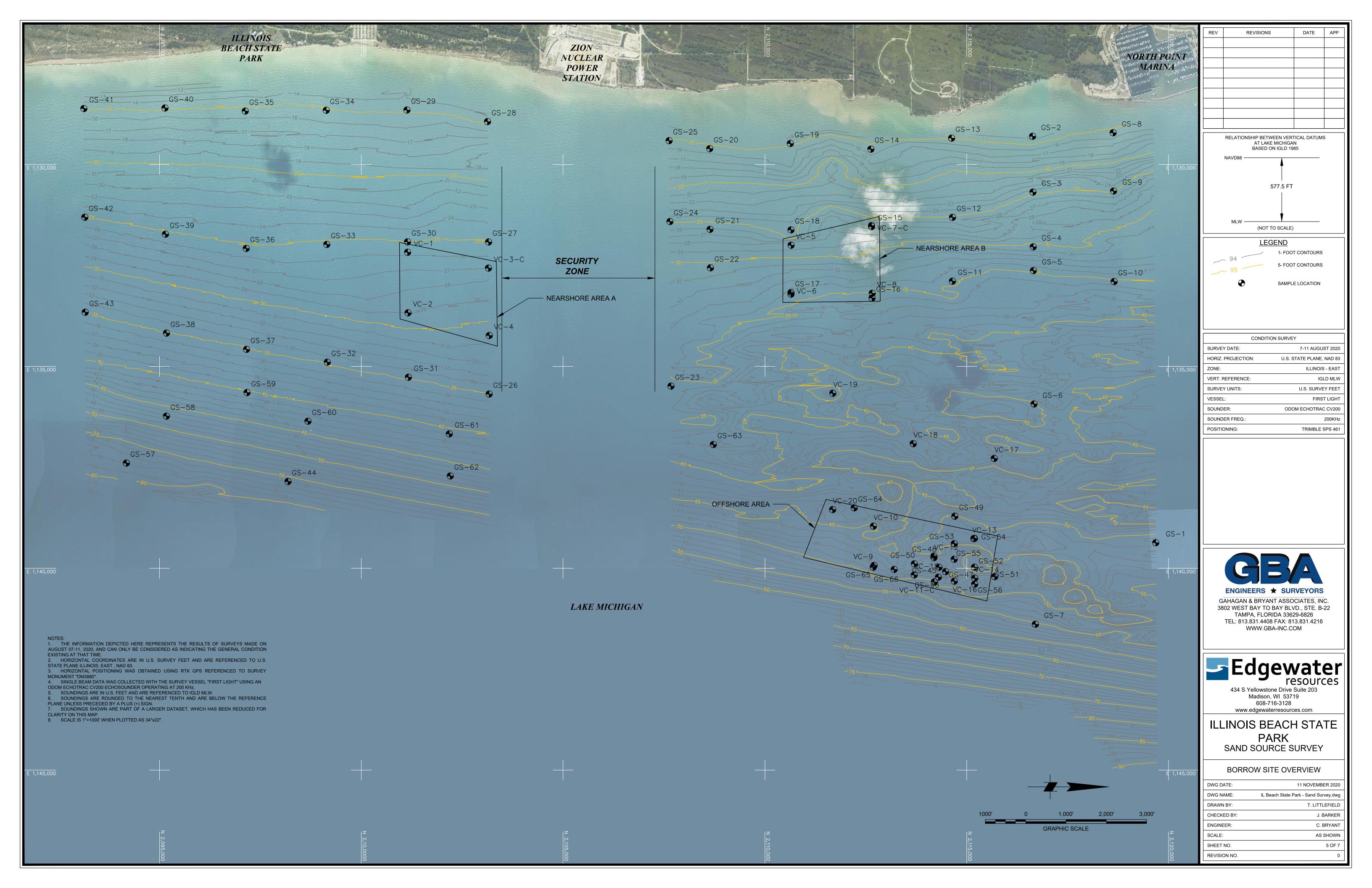


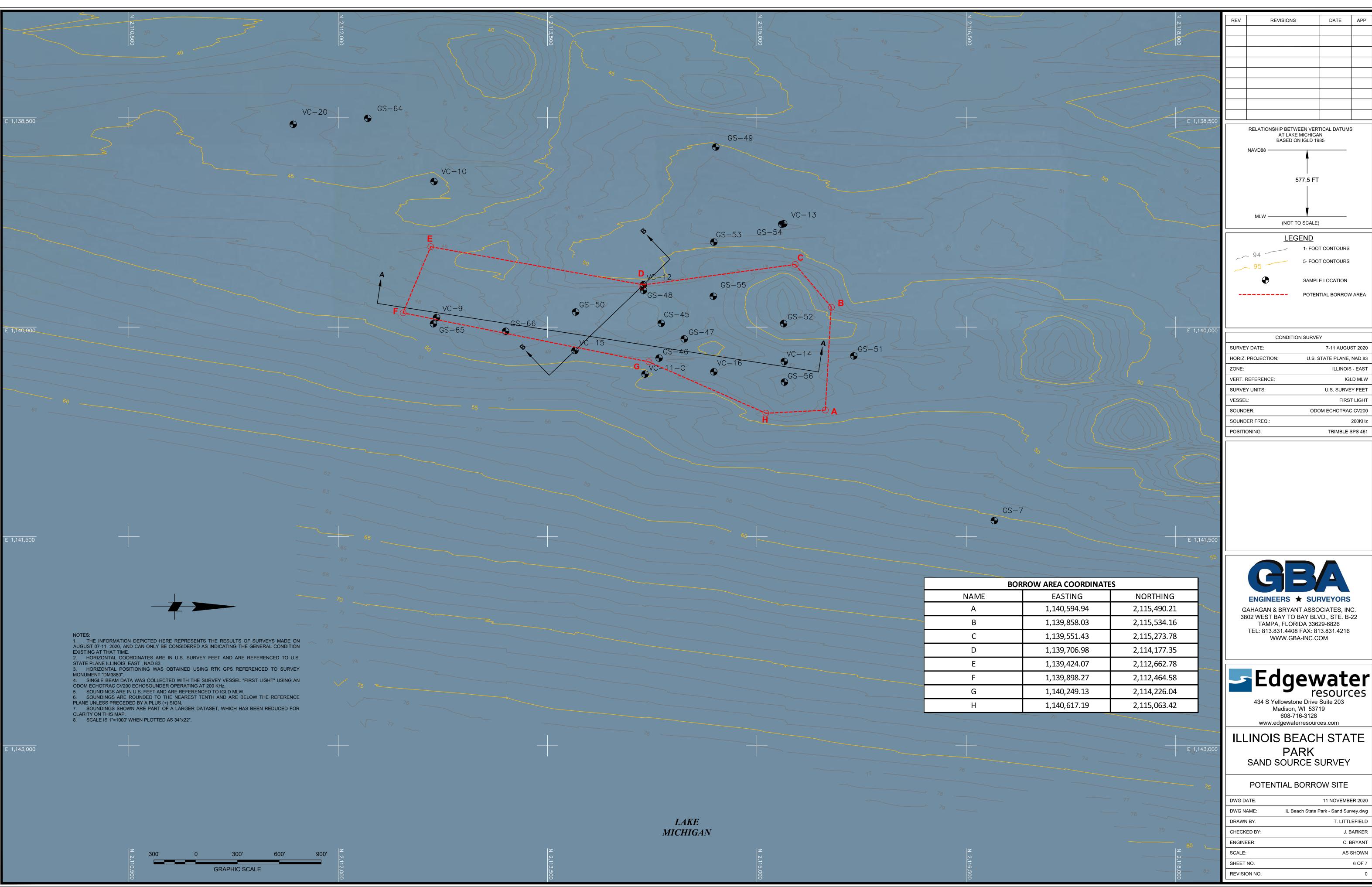
GRAB SAMPLE LOCATIONS											
SAMPLE	EASTING	NORTHING									
GS-1	1139366.86	2119682.4									
GS-2	1129300.87	2116629.43									
GS-3	1130683.44	2116640.1									
GS-4	1132038.39	2116646.31									
GS-5	1132628.57	2116649.37									
GS-6	1135933	2116667.12									
GS-7	1141387.15	2116700.62									
GS-8	1129212.26	2118627.94									
GS-9	1130655.12	2118637.8									
GS-10	1132899.86	2118650.75									
GS-11	1132889.78	2114644.69									
GS-12	1131308.55	2114648.23									
GS-13	1129346.53	2114623.5									
GS-14	1129617.76	2112624.37									
GS-15	1131511.02	2112641.48									
GS-16	1133305.87	2112654.95									
GS-17	1133172.3	2110645.73									
GS-18	1131618.51	2110646.14									
GS-19	1129479.57	2110627.46									
GS-20	1129606.72	2108630.24									
GS-21	1131604.74	2108638.81									
GS-22	1132557.71	2108649.67									
		N									

SAMPLEEASTINGNORTHINGGS-231135488.882107670.6GS-241131413.642107643.52GS-251129408.062107623.78GS-261135685.792103165.15GS-271131917.922103150.53GS-281128635.922103125.99GS-291132649.192101128.39GS-301131915.432101143.73GS-311135267.18209157.15GS-321134894.452099143.5GS-341128657.742099127.79GS-351132077.652097145.5GS-361132077.652097145.5GS-371134577.652097145.5GS-381134176.77209513.27GS-39113477.65209513.26GS-401128599.232095132.96GS-41113306.382093124.32GS-42113306.382093157.88GS-441137851.882098183.96	GRAB	SAMPLE LO	CATIONS
GS-241131413.642107643.52GS-251129408.062107623.78GS-261135685.792103165.15GS-271131917.922103150.53GS-281128935.922103125.99GS-291128649.192101128.39GS-301131915.432101143.73GS-311135267.182101166.08GS-321134894.452099157.15GS-331131979.862099143.5GS-341128657.742099127.79GS-351132077.62097145.5GS-361132077.652097145.5GS-371134577.652097153.27GS-381134176.772095170.82GS-401128613.932093124.32GS-411128613.932093124.32GS-421131306.382093145.19GS-431133659.042093157.88	SAMPLE	EASTING	NORTHING
GS-251129408.062107623.78GS-261135685.792103165.15GS-271131917.922103150.53GS-281128935.922103125.99GS-291128649.192101128.39GS-301131915.432101143.73GS-311135267.182101166.08GS-321134894.452099157.15GS-331131979.862099143.5GS-341128657.742099127.79GS-351128676.842097122.04GS-361132077.62097145.5GS-371134577.652097145.5GS-381134176.772095170.82GS-391131725.832095132.96GS-411128613.932093124.32GS-421131306.382093145.19GS-431133659.042093157.88	GS-23	1135488.88	2107670.6
GS-261135685.792103165.15GS-271131917.922103150.53GS-281128935.922103125.99GS-291128649.192101128.39GS-301131915.432101143.73GS-311135267.182101166.08GS-321134894.452099157.15GS-331131979.862099143.5GS-341128657.742099127.79GS-351128676.842097122.04GS-361132077.62097145.5GS-371134577.652097145.5GS-381134176.772095170.82GS-391131725.832095132.96GS-401128599.232093124.32GS-421131306.382093145.19GS-431133659.042093157.88	GS-24	1131413.64	2107643.52
GS-271131917.922103150.53GS-281128935.922103125.99GS-291128649.192101128.39GS-301131915.432101143.73GS-311135267.182101166.08GS-321134894.452099157.15GS-331131979.862099143.5GS-341128657.742099127.79GS-351128676.842097122.04GS-361132077.62097145.5GS-371134577.652097145.5GS-381134176.772095170.82GS-391131725.832095146.68GS-401128599.232095132.96GS-411128613.932093124.32GS-421131306.382093145.19GS-431133659.042093157.88	GS-25	1129408.06	2107623.78
GS-281128935.922103125.99GS-291128649.192101128.39GS-301131915.432101143.73GS-311135267.182101166.08GS-321134894.452099157.15GS-331131979.862099143.5GS-341128657.742099127.79GS-351128676.842097122.04GS-361132077.62097145.5GS-371134577.652097145.5GS-381134176.772095170.82GS-391131725.832095146.68GS-401128599.232095132.96GS-411128613.932093124.32GS-421131306.382093145.19GS-431133659.042093157.88	GS-26	1135685.79	2103165.15
GS-291128649.192101128.39GS-301131915.432101143.73GS-311135267.182101166.08GS-321134894.452099157.15GS-331131979.862099143.5GS-341128657.742099127.79GS-351128676.842097122.04GS-361132077.62097145.5GS-371134577.652097153.27GS-381134176.772095170.82GS-391131725.832095132.96GS-411128613.932093124.32GS-42113306.382093145.19GS-431133659.042093157.88	GS-27	1131917.92	2103150.53
GS-301131915.432101143.73GS-311135267.182101166.08GS-321134894.452099157.15GS-331131979.862099143.5GS-341128657.742099127.79GS-351128676.842097122.04GS-361132077.62097145.5GS-371134577.652097145.5GS-381134176.772095170.82GS-391131725.832095146.68GS-401128599.232095132.96GS-421131306.382093145.19GS-431133659.042093157.88	GS-28	1128935.92	2103125.99
GS-311135267.182101166.08GS-321134894.452099157.15GS-331131979.862099143.5GS-341128657.742099127.79GS-351128676.842097122.04GS-361132077.62097145.5GS-371134577.652097145.5GS-381134176.772095170.82GS-391131725.832095146.68GS-401128599.232095132.96GS-411128613.932093124.32GS-421131306.382093145.19GS-431133659.042093157.88	GS-29	1128649.19	2101128.39
GS-321134894.452099157.15GS-331131979.862099143.5GS-341128657.742099127.79GS-351128676.842097122.04GS-361132077.62097145.5GS-371134577.652097153.27GS-381134176.772095170.82GS-391131725.832095146.68GS-401128599.232095132.96GS-411128613.932093124.32GS-421131306.382093145.19GS-431133659.042093157.88	GS-30	1131915.43	2101143.73
GS-331131979.862099143.5GS-341128657.742099127.79GS-351128676.842097122.04GS-361132077.62097145.5GS-371134577.652097145.27GS-381134176.772095170.82GS-391131725.832095146.68GS-401128599.232095132.96GS-411128613.932093124.32GS-421131306.382093145.19GS-431133659.042093157.88	GS-31	1135267.18	2101166.08
GS-341128657.742099127.79GS-351128676.842097122.04GS-361132077.62097145.5GS-371134577.652097153.27GS-381134176.772095170.82GS-391131725.832095146.68GS-401128599.232095132.96GS-411128613.932093124.32GS-421131306.382093145.19GS-431133659.042093157.88	GS-32	1134894.45	2099157.15
GS-351128676.842097122.04GS-361132077.62097145.5GS-371134577.652097153.27GS-381134176.772095170.82GS-391131725.832095146.68GS-401128599.232095132.96GS-411128613.932093124.32GS-421131306.382093145.19GS-431133659.042093157.88	GS-33	1131979.86	2099143.5
GS-361132077.62097145.5GS-371134577.652097153.27GS-381134176.772095170.82GS-391131725.832095146.68GS-401128599.232095132.96GS-411128613.932093124.32GS-421131306.382093145.19GS-431133659.042093157.88	GS-34	1128657.74	2099127.79
GS-371134577.652097153.27GS-381134176.772095170.82GS-391131725.832095146.68GS-401128599.232095132.96GS-411128613.932093124.32GS-421131306.382093145.19GS-431133659.042093157.88	GS-35	1128676.84	2097122.04
GS-381134176.772095170.82GS-391131725.832095146.68GS-401128599.232095132.96GS-411128613.932093124.32GS-421131306.382093145.19GS-431133659.042093157.88	GS-36	1132077.6	2097145.5
GS-391131725.832095146.68GS-401128599.232095132.96GS-411128613.932093124.32GS-421131306.382093145.19GS-431133659.042093157.88	GS-37	1134577.65	2097153.27
GS-401128599.232095132.96GS-411128613.932093124.32GS-421131306.382093145.19GS-431133659.042093157.88	GS-38	1134176.77	2095170.82
GS-411128613.932093124.32GS-421131306.382093145.19GS-431133659.042093157.88	GS-39	1131725.83	2095146.68
GS-421131306.382093145.19GS-431133659.042093157.88	GS-40	1128599.23	2095132.96
GS-43 1133659.04 2093157.88	GS-41	1128613.93	2093124.32
	GS-42	1131306.38	2093145.19
GS-44 1137851.88 2098183.96	GS-43	1133659.04	2093157.88
	GS-44	1137851.88	2098183.96

GRAB S	SAMPLE LO	CATIONS
SAMPLE	EASTING	NORTHIN
GS-45	1139973.06	2114313.
GS-46	1140222.3	2114298.
GS-47	1140085.03	2114478.
GS-48	1139737.13	2114187.
GS-49	1138710.18	2114704.
GS-50	1139892.28	2113700.
GS-51	1140207.12	2115693.
GS-52	1139975.44	2115191.
GS-53	1139391.69	2114690.
GS-54	1139263.56	2115177.
GS-55	1139779.24	2114686.
GS-56	1140394.08	2115197.
GS-57	1137393.44	2094175
GS-58	1136232.51	2095169.
GS-59	1135650.04	2097165.
GS-60	1136357.91	2098674.
GS-61	1136671.69	2102179.
GS-62	1137714.51	2102201.
GS-63	1136933.62	2108721.
GS-64	1138504.14	2112211.
GS-65	1139975.95	2112682.
GS-66	1140030.29	2113199.

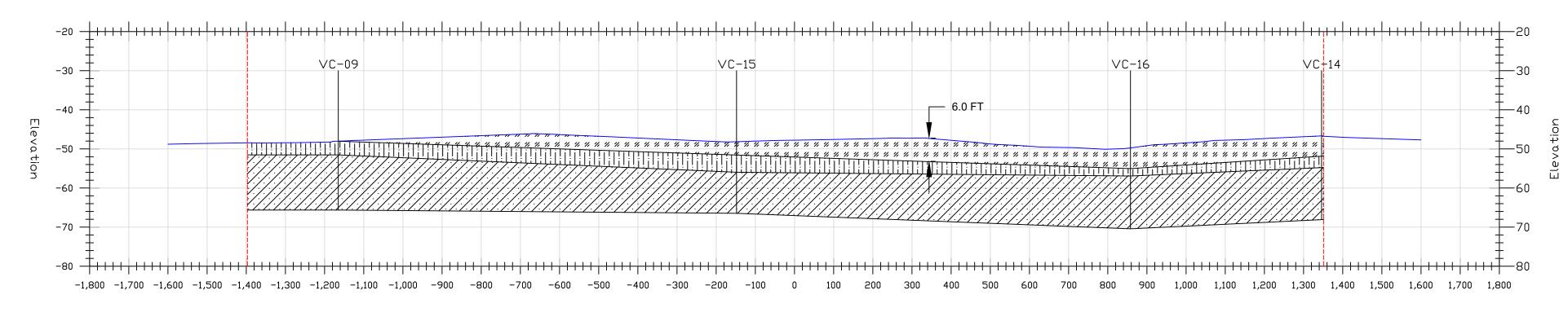
NATIVE BEACH SAMPLES											
SAMPLE	EASTING	NORTHING									
NB-1	1128432.06	2113248.68									
NB-2	1128631.59	2114863.56									
NB-3	1126964.89	2099777.58									
NB-4	1127044.78	2098145									
NB-5	1127381.65	2094011.15									
NB-6	1127426.93	2092930.44									





	S	ROW AREA COORDINATE
	NORTHING	EASTING
	2,115,490.21	1,140,594.94
	2,115,534.16	1,139,858.03
	2,115,273.78	1,139,551.43
	2,114,177.35	1,139,706.98
	2,112,662.78	1,139,424.07
	2,112,464.58	1,139,898.27
-	2,114,226.04	1,140,249.13
	2,115,063.42	1,140,617.19

DWG DATE:	11 NOVEMBER 2020
DWG NAME:	IL Beach State Park - Sand Survey.dwg
DRAWN BY:	T. LITTLEFIELD
CHECKED BY:	J. BARKER
ENGINEER:	C. BRYANT
SCALE:	AS SHOWN
SHEET NO.	6 OF 7
REVISION NO.	0



-30 -40 -50 --70 —

NOTES: 1. THE INFORMATION DEPICTED HERE REPRESENTS THE RESULTS OF SURVEYS MADE ON AUGUST 07-11, 2020, AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITION EXISTING AT THAT TIME. 2. HORIZONTAL COORDINATES ARE IN U.S. SURVEY FEET AND ARE REFERENCED TO U.S. STATE PLANE ILLINOIS, EAST , NAD 83. 3. HORIZONTAL POSITIONING WAS OBTAINED USING RTK GPS REFERENCED TO SURVEY MONUMENT "DM3880".

4. SINGLE BEAM DATA WAS COLLECTED WITH THE SURVEY VESSEL "FIRST LIGHT" USING AN ODOM ECHOTRAC CV200 ECHOSOUNDER OPERATING AT 200 KHz. 5. SOUNDINGS ARE IN U.S. FEET AND ARE REFERENCED TO IGLD MLW. SOUNDINGS ARE ROUNDED TO THE NEAREST TENTH AND ARE BELOW THE REFERENCE 6

PLANE UNLESS PRECEDED BY A PLUS (+) SIGN. 7. SOUNDINGS SHOWN ARE PART OF A LARGER DATASET, WHICH HAS BEEN REDUCED FOR CLARITY ON THIS MAP.

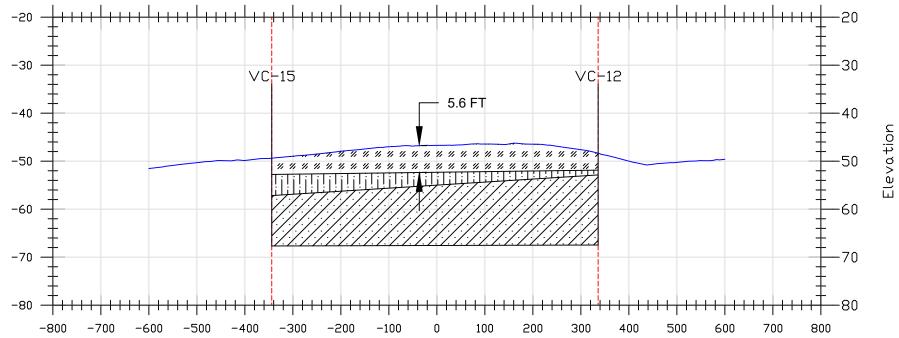
8. SCALE IS 1"=200' WHEN PLOTTED AS 34"x22".

400' 600' 200' 200' 0

HORIZONTAL GRAPHIC SCALE

SECTION A-A

SECTION B-B



VERTICAL GRAPHIC SCALE

20'

0

40'

60'

20'

REV	REVISIONS			
	ILE VISIONS		DATE	APP
	RELATIONSHIP BETWE			s
	AT LAKE BASED ON			
		IIGEB 10		
	NAVD88			
		T		
	5	77.5 FT		
		1		
	MLW			
) SCALE)		
		, 00, (EE)		
	LEGI	=ND		
		SAND S	OURCE BOUN	IDARY
		EXISTIN	IG BOTTOM	
	<i>, , , , , , , , , , , , , , , , , , , </i>			
	*	MEDIU	A SAND (SP)	
[]		SILTY F	INE SAND (SM	1)
	<u></u>			
7/	/././././././.			
12.2		INTERB	EDDED CLAY	(30)
	CONDITION		Y	
	CONDITION	SURVE	T	
SURVE	Y DATE:		7-11 AUGU	ST 2020
HORIZ.	PROJECTION:	U.S. S	TATE PLANE,	NAD 83
ZONE:			ILLINOIS	- FAST
_				
	REFERENCE:		IGI	_D MLW
SURVE	Y UNITS:		U.S. SURVE	Y FEET
VESSE	L:		FIRS	T LIGHT
		0.00		
SOUND	PER:	ODC	M ECHOTRAC	CV200
SOUND	ER FREQ.:			200KHz
POSITI	ONING:		TRIMBLE	SPS 461
38	AHAGAN & BRYANT 02 WEST BAY TO E TAMPA, FLORI TEL: 813.831.4408 WWW.GBA	F ASSO AY BL\ DA 3362 FAX: 81 -INC.CO	CIATES, IN /D., STE. B- 29-6826 3.831.4216 OM	22
38	AHAGAN & BRYAN 302 WEST BAY TO E TAMPA, FLORI TEL: 813.831.4408 WWW.GBA	ASSO AY BLV DA 3362 FAX: 81 -INC.CO PAX: 81 -I	CIATES, IN (D., STE. B- 29-6826 3.831.4216 DM /at Sources Suite 203 19 res.com I STA URVEY	er ces
	AHAGAN & BRYAN 302 WEST BAY TO E TAMPA, FLORI TEL: 813.831.4408 WWW.GBA Edgg 434 S Yellowston Madison, N 608-710 WWW.edgewater INOIS BE PAI SAND SOUR SECTION ATE:	ASSO AY BLV DA 3362 FAX: 81 -INC.CO PAX: 81 -I	CIATES, IN (D., STE. B- 29-6826 3.831.4216 DM Vat Source Suite 203 19 res.com HSTA URVEY VS	er 2020
	AHAGAN & BRYAN 302 WEST BAY TO E TAMPA, FLORII TEL: 813.831.4408 WWW.GBA Edgg 434 S Yellowston Madison, N 608-710 WWW.edgewater INOIS BE PA SAND SOUR SECTION ATE: AME: IL Bear	ASSO AY BLV DA 3362 FAX: 81 -INC.CO PAX: 81 -I	CIATES, IN (D., STE. B- 29-6826 3.831.4216 DM /at Soute 203 19 ees.com I STA URVEY VS 11 NOVEMBR Park - Sand Sur	er 2020
38 ILL DWG D DWG N DRAWN	AHAGAN & BRYAN 302 WEST BAY TO E TAMPA, FLORI TEL: 813.831.4408 WWW.GBA Edgg 434 S Yellowston Madison, N 608-710 Madison,	ASSO AY BLV DA 3362 FAX: 81 -INC.CO PAX: 81 -I	CIATES, IN (D., STE. B- 29-6826 3.831.4216 DM /at Soute 203 19 ees.com H STA URVEY VS 11 NOVEMBI Park - Sand Sur T. LITTL	ER 2020 vey.dwg EFIELD
38 ILL DWG D DWG N DRAWN CHECK	AHAGAN & BRYAN 302 WEST BAY TO E TAMPA, FLORI TEL: 813.831.4408 WWW.GBA EDBY: AHAGAN & BRYAN SAND SOUR ATE: AME: IL Beau IL Beau IL Beau	ASSO AY BLV DA 3362 FAX: 81 -INC.CO PAX: 81 -I	CIATES, IN (D., STE. B- 29-6826 3.831.4216 DM / / / / / / / / / / / / / / / / / /	ER 2020 vey.dwg EFIELD BARKER
38 ILL DWG D DWG N DRAWN	AHAGAN & BRYAN 302 WEST BAY TO E TAMPA, FLORI TEL: 813.831.4408 WWW.GBA EDBY: AHAGAN & BRYAN SAND SOUR ATE: AME: IL Beau IL Beau IL Beau	ASSO AY BLV DA 3362 FAX: 81 -INC.CO PAX: 81 -I	CIATES, IN (D., STE. B- 29-6826 3.831.4216 DM / / / / / / / / / / / / / / / / / /	ER 2020 vey.dwg EFIELD
38 ILL DWG D DWG N DRAWN CHECK	AHAGAN & BRYAN 302 WEST BAY TO E TAMPA, FLORI TEL: 813.831.4408 WWW.GBA Edge 434 S Yellowston Madison, N 608-710 Www.edgewater INOIS BE PAI SAND SOUR SECTION ATE: AME: IL Beau NBY: ED BY: EER:	ASSO AY BLV DA 3362 FAX: 81 -INC.CO PAX: 81 -I	CIATES, IN (D., STE. B- 29-6826 3.831.4216 DM /at Solute 203 19 ees.com H STA URVEY VS 11 NOVEMBE Park - Sand Sur T. LITTL J. E C. E	ER 2020 vey.dwg EFIELD BARKER
38 ILL DWG D DWG N DRAWN CHECK ENGINE	AHAGAN & BRYAN 302 WEST BAY TO E TAMPA, FLORI TEL: 813.831.4408 WWW.GBA EDISON ATE: AME: LI Beau AME: LI Beau AME: LI Beau AME: LI Beau	ASSO AY BLV DA 3362 FAX: 81 -INC.CO PAX: 81 -I	CIATES, IN (D., STE. B- 29-6826 3.831.4216 DM /at Solute 203 19 ees.com H STA URVEY VS 11 NOVEMBE Park - Sand Sur T. LITTL J. E C. E	22 ER 2020 Vey.dwg EFIELD BARKER BRYANT



VIBRACORE LOGS

D D D			DIVIS	SION			INS	TAL		N C			S	HEET 1
	LLING	LUC	2											OF 1 SHEETS
PROJ		`					9.	SIZE	AND	TYPE OF BIT	3.0	In.		
	3SP Sand \$ ion, Illinois		e Survey				10.			NATE SYSTEM/D/ ^D lane	АТИМ	HORIZONTAI NAD 1983		ertical IGLD MLW
	ING DESIGN	NATIO	И	LOCATIO			11.			CTURER'S DESIG	GNATIO	N OF DRILL		O HAMMER
	C-01			X = 1,1		Y = 2,101,147 RACTOR FILE NO.		\	'ibrac	ore	DIE	L TURBED		IUAL HAMMER
	thena Tech		ies		CONTI	RACTOR FILE NO.	12.	то	TAL S	AMPLES	2		UND	13 I ORBED (OD)
NAM	E OF DRILL	ER			•		13.	то	TAL N		OXES			
	almer McC						14.	ELI	VATI	ON GROUND WA	TER			
\boxtimes	CTION OF I	BORIN	G	DEG. FR VERTICA	OM AL	BEARING	15.	DA	ГЕ ВО	RING	1	RTED 8-14-20		PLETED -14-20
тніс	KNESS OF	OVER	BURDEN	0.0 Ft.			16.	ELI	VATI	ON TOP OF BOR	ING	-25.8 Ft.		
DEPT			ROCK	0.0 Ft.			17.	то	TAL R	ECOVERY FOR B	BORING	7.9 Ft.		
							18.	SIG	NATU	JRE AND TITLE (OF INSP	ECTOR		
тоти	AL DEPTH C	DF BOF	RING S	9.8 Ft.				J	_	an Barker P.G.				
L EV. (ft) 25.8	DEPTH (ft) 0.0	LEGEND				F MATERIALS d on measured valu	es I	REC.	BOX OR SAMPLE			REMARKS		
										Sample #1, D	epth =	1.0'		
ŀ	_	[:							_1_).11, Pł	ni Sorting: 0.47		
	_									1 11165 (200). 2		51 -51vi)		
		[:]	Silty S			2.2', 3.6', and 4.8',								
ŀ	-	 •.			(SP-SM).								
	_	 :• ‡												
	-													
31.1	- 5.3	[:•]]								Sample #2, D	epth =	5.5'		
		1+1+1							_2_	Mean (mm): 0 Fines (230): 6).11, Pl 3.50% (ni Sorting: 0.50 SM)		
	-		0114 0							1 1100 (200). 0		OWI		
-	-	 +‡+‡	Silty S	and, clay lei	nses at :	5.6', and 6.5', (SM)								
33.8	8.0	11+1+												
-	-													
				Er	nd of Bo	ring								
-	-					0								
ľ	-													
ŀ	_													
Ī	-													
-														
Ē	-													
ŀ	_													
ŀ	-													
ŀ	-													
F														
	-													
	DRM 183				TUE	LORIDA DEP								

DRI	LLING	LOG	B)N		INS	TALL	ATIO	N				SHEET 1
1. PROJ	JECT		I			9.	SIZE	AND	TYPE OF BIT	3.0 li	n.		OF 1 SHEETS
IE	3SP Sand \$	Source	• Survey						NATE SYSTEM/DA		HORIZON	ITAL	VERTICAL
Zi	ion, Illinois								Plane		NAD 1		IGLD MLW
2. BORI	NG DESIGN	NATIO	N	LOCATION COORD	INATES	11.			CTURER'S DESIG	NATION			AUTO HAMMER
	C-02			X = 1,139,697			V	ibrac	ore				MANUAL HAMMER
				CONTR	ACTOR FILE NO.	12.	тот	TAL S	AMPLES		URBED		UNDISTURBED (UD)
	thena Tech E OF DRILL		les			+				2		i	
	almer McC					13.	TO	TAL N	UMBER CORE BO	XES			
			G	DEG. FROM VERTICAL	BEARING	- 14.	ELE	VATI	ON GROUND WAT	FER			
	/ERTICAL NCLINED			VERTICAL		15.	DAT	ГЕ ВО	RING	STAR 08	TED -14-20		08-14-20
6. тніс	KNESS OF	OVER	BURDEN	0.0 Ft.					ON TOP OF BORI		-29.0 Ft.		
7. DEPT	TH DRILLED	о інто	ROCK (0.0 Ft.					ECOVERY FOR BO		14 Ft.		
В. ТОТА	AL DEPTH C	OF BOR	LING 15.	5.0 Ft.					an Barker P.G.				
ELEV. (ft) -29.0	DEPTH (ft) 0.0	LEGEND		LASSIFICATION OF d elevations based	MATERIALS	es I	REC.	BOX OR SAMPLE			REMARK	s	
-	-		Silty S	Sand, clay lenses a (SP-SM)	at 2.3', and 6.7',).			_12	Sample #1, De Mean (mm): 0. Fines (230): 1. Sample #2, De Mean (mm): 0. Fines (230): 4.	.12, Phi 94% (S pth = 6 11, Phi	Sorting: (SP-SM) .5' Sorting: (
-37.8	<u>8.8</u> ► 9.02			Clay, (CL)	\neg							
00.0		····			.).	~							
-	-	· · · · · · · · · · · · · · · · · · ·		Fine sand, (SP).								
-41.0	<u>12.0</u> <u>12.3</u>			Fine sand with cl	lay, (SC).	-							
		$ \cdots $											
ľ	-	[···]		Fine sand, (SP).								
-43.0	14.0		<u> </u>			\square							
-	 - -			End of Bor	ing								
ŀ	-												
F	-												
	_												
┝	-												
			I										
			•										

DR	ILLING	LOG	DIVISI	ON			INS	TALI	ATIO					SHEET 1
. PRO							9	SIZE		TYPE OF BIT	3.0 lr	<u>ר</u>		OF 1 SHEETS
I	BSP Sand S	Source	Survey							NATE SYSTEM/DAT		HORIZONTA		VERTICAL
	Zion, Illinois		,				10.			Plane		NAD 198		IGLD MLW
	RING DESIGN			LOCATION	COORD		11							
	VC-03-C					Y = 2,115,196	···		ibrac					ANUAL HAMMER
	LLING AGEN	CY				ACTOR FILE NO.		•	biuo	010	DIST	JRBED		NDISTURBED (UD)
	Athena Tech		es				12.	то	TAL S	AMPLES	1			
	AE OF DRILL	<u> </u>					42	TO.						
	Palmer McC						_				-			
	ECTION OF		3	DEG. FRO	м	BEARING	14.	ELE	EVATI	ON GROUND WATE	ER			
	VERTICAL INCLINED			VERTICA	L		15.	DA	ГЕ ВО	RING	STAR	TED -14-20		OMPLETED 08-14-20
. тн і	CKNESS OF	OVERB	URDEN	0.0 Ft.			16.	ELE	EVATI	ON TOP OF BORIN	G	-27.0 Ft.		
. DEP	TH DRILLED	INTO	ROCK	0.0 Ft.						ECOVERY FOR BO		12 Ft.		
в. тот	AL DEPTH O	F BOR	ING 12	2.0 Ft.			18.			JRE AND TITLE OF nan Barker P.G.	INSPE	CTOR		
ELEV. (ft) -27.0	DEPTH (ft) 0.0	LEGEND				MATERIALS on measured value	es I	REC.	BOX OR SAMPLE			REMARKS		
-39.0	- - - - - - - - - - - - - - - - - - -			Silty	Sand, (\$	SM).			1	Sample #1, Dep Mean (mm): 0.1 Fines (230): 17.	l2, Phi	Sorting: 0.64	ł	
				End	d of Bori	ing								
	F													
	L													
	L													
	F													
	F													
	F													
	F													
	⊢													
	F													
	ORM 183	1 1			THE E	LORIDA DEP								

DRILLING LOG	DIVISION			INS	TALL		N				SHEET 1
1. PROJECT				9. 4	SIZF		TYPE OF BIT	3.0 ln			OF 1 SHEETS
IBSP Sand Source Su	irvey						ATE SYSTEM/DAT		HORIZONTA		VERTICAL
Zion, Illinois	,			10.			Plane		NAD 198		IGLD MLW
2. BORING DESIGNATION	LOCATION	COORDI	NATES	11.			CTURER'S DESIGN				
VC-04	1		Y = 2,113,696			brac					MANUAL HAMMER
3. DRILLING AGENCY			CTOR FILE NO.					DISTU	RBED		NDISTURBED (UD
Athena Technologies				12.	тот	AL S	AMPLES	2			
4. NAME OF DRILLER				13.	тот	AL N	UMBER CORE BO	(ES		•	
Palmer McClellan				14			ON GROUND WAT	ED			
5. DIRECTION OF BORING	DEG. FRO	м	BEARING	14.	ELE	VAII	ON GROOND NAT	STAR			OMPLETED
VERTICAL		-		15.	DAT	Е ВО	RING	!	14- 20		08-14-20
6. THICKNESS OF OVERBUR		•		16			ON TOP OF BORIN		-30.6 Ft.		00 14 20
7. DEPTH DRILLED INTO RO	ск 0.0 Ft.						ECOVERY FOR BO		14.2 Ft.		
8. TOTAL DEPTH OF BORING	16.0 Ft.			18.			IRE AND TITLE OF	INSPEC	TOR		
	10.011.				_	_	an Barker P.G.				
ELEV. DEPTH SU (ff) (ff) SU -30.6 0.0	CLASSIFICAT epths and elevations			s R	×ec.	BOX OR SAMPLE			REMARKS		
						1	Sample #1, Dep Mean (mm): 0.1 Fines (230): 1.9	12, Phi	Sorting: 0.45	5	
	Silty sand , clay len	ises at 0.	5', 5.7', (SP-SM).				Sample #2, Dep	oth = 8.0)'		
- - - 10.5 s	ilty sand, clay lens a	at 7.9', tr (SM).	race clay from 8-9	',	L	2	Mean (mm): 0.1 Fines (230): 6.8	12, Phi 3 6% (SN	Sorting: 0.65 /)	5	
	Fine sand with inte	rbedded	clay layers, (SC).								
	Enc	d of Borir	ng								
AJ FORM 1836 MC	DIFIED FOR T	THE FL	ORIDA DEP								

DRI	LLING	LOC		ION		INS	TALI	LATIO)N				SHEET 1 OF 1 SHEETS
. PRO	JECT		I			9.	SIZE		TYPE OF BIT	3.0	In.		
IE	BSP Sand S	Source	e Survey						NATE SYSTEM/DA		HORIZONTA	L	VERTICAL
	ion, Illinois		-						Plane		NAD 198		IGLD MLW
	ING DESIGN		N	LOCATION COO	ORDINATES	11.			CTURER'S DESIG	NATIO	•		
V	/C-05			1	1 Y = 2,114,691			/ibrac					MANUAL HAMMER
. DRIL	LING AGEN	ICY			TRACTOR FILE NO.	1.0				DIST	URBED	U	NDISTURBED (UD)
A	thena Tech	nnolog	ies			12.	то	TAL S	AMPLES	2		Ì	
. NAM	E OF DRILL	ER				13.	то	TAL N	IUMBER CORE BO	XES			
P	Palmer McC	lellan				14	FU	EVATI	ON GROUND WAT	TFR			
	CTION OF E	BORIN	G	DEG. FROM VERTICAL	BEARING						RTED	ic	OMPLETED
	INCLINED					15.	DA	те во	RING		3-14-20		08-14-20
	KNESS OF	OVER		0.0 Ft.	•	16	ELL		ON TOP OF BORI		-28.8 Ft.	<u>.</u>	00 11 20
	JANE 33 OF	OVER	BORDEN	0.0 Fl.									
. DEP	TH DRILLED	і пто	ROCK	0.0 Ft.					ECOVERY FOR B		7.4 Ft.		
тот	AL DEPTH O			3.8 Ft.		18.			JRE AND TITLE O	F INSP	ECTOR		
		-		5.011.		<u> </u>	J		an Barker P.G.				
ELEV. (ft)	DEPTH (ft)	LEGEND		CLASSIFICATION	OF MATERIALS sed on measured valu		REC.	BOX OR SAMPLE			REMARKS		
-28.8	0.0	Ľ	Deptilo a					BO	Sompla #1 Do	nth -	0.5		
								1	Sample #1, De Mean (mm): 0			9	
	-	[°]]							Fines (230): 4	.33% (SW-SM)		
		0.00	0.11	roomd alarstan									
	-		Silty	sand, clay lense / SW-	es at 0.7', 2.7', 3.1', SM).								
	_	°		(011-)									
-33.1	- 4.3	• • •							a		- 01		
-ວວ.⊺	4.3	╊ _┙ ┥┥				\neg		2	Sample #2, De Mean (mm): 0	= # 10 שי	5.0' hi Sorting: 0.2'	2	
	-	┨┥╡╡╿						2	Fines (230): 1	0.31%	(SM)	,	
		 +‡+‡							()		. /		
	-	 !!!!!!!!!!!!!		bility Sand, clay le	ns at 6.0', (SM).								
		 											
-36.2	7.4	<u> </u> ↓†↓†											
	-												
		1											
	-	1											
		1		End of	Boring								
	-												
		1											
		1											
	-	1											
	-	1											
		1											
	-												
		1											
	_	1											
	L												
		1											
	-	1											
		1											
	-	1											
		1											
	-	1											
		1											
	-	1											
		1				1							

DP		100	DIVIS	ION			INS	TAL	LATIC	N		SHEET 1
	LLING	LUG	•									OF 1 SHEETS
I. PRO		201.00	Survey								0 ln.	
	BSP Sand S		Survey				10.			NATE SYSTEM/DATUM		
	Zion, Illinois						+			Plane	NAD 1983	•
	ING DESIGN	IATION	•	LOCATION		Y = 2,115,679	111.		NUFA ⁄ibrac	CTURER'S DESIGNAT		AUTO HAMMER
	LING AGEN			X = 1,13		ACTOR FILE NO.	+			DI		UNDISTURBED (UD)
	Athena Tech		es				12.	то	TAL S		2	
I. NAM	IE OF DRILL	ER					13.	то		IUMBER CORE BOXES		•
P	Palmer McC	lellan		-			14	FU	τνατι	ON GROUND WATER		
	ECTION OF E	BORING	G	DEG. FRO	DM L	BEARING	—				ARTED	COMPLETED
	INCLINED						15.	DA.	TE BC	RING	08-14-20	08-14-20
6. THIC	CKNESS OF	OVERE	BURDEN	0.0 Ft.		•	16.	ELI	EVATI	ON TOP OF BORING	-34.3 Ft.	
							_			ECOVERY FOR BORIN		
7. DEP	TH DRILLED	INTO	ROCK	0.0 Ft.						JRE AND TITLE OF IN		
в. тот	AL DEPTH O	F BOR	ING 8	8.5 Ft.			'''			nan Barker P.G.	FECTOR	
ELEV. (ft)	DEPTH (ft)	LEGEND				MATERIALS	ies I	REC.	КШ		REMARKS	
-34.3	0.0 -											
	-		S	ilty sand, tra	ace clay	at 0.9', (SM).			_1_	Sample #1, Depth Mean (mm): 0.10, Fines (230): 7.09%	Phi Sorting: 0.33	
-37.5	- 3.2										·/	
-37.5 -37.7	3.4	╞┼┼┤	<u> </u>	C	lay, (CL	.)	$ \exists$					
	╞	[⊡]			sand, (
-38.9	4.6	1 1.					-					
-41.7	- 7.4		Fine sa	and with inte	erbedde	d clay layers, (SC)						
	-	/7.////		En	d of Bor	ing						
	_											
	 -											
	-											
	┝											
	F											
	L											
	╞											
	F											
	L											
	F											
	ORM 183					LORIDA DEP	, <u> </u>			1		

DR	ILLING	LOG	DIVIS	ION			INS	TALI	LATIO	N				SHEET 1 OF 1 SHEETS
PRO	JECT		1				9.	SIZE		TYPE OF BIT	3.0	In.		U I UNEEI3
I	BSP Sand S	Source	Survey							NATE SYSTEM/DA		HORIZONT	AL.	VERTICAL
Z	Zion, Illinois									Plane		NAD 198		IGLD MLW
BOR	RING DESIGN		•	LOCATION	COORD	INATES	11.			CTURER'S DESIG	GNATIO	•		AUTO HAMMER
١	/C-07-C			X = 1,13	36,914	Y = 2,113,674		V	/ibrac	ore				MANUAL HAMMER
DRI	LLING AGEN	ICY			CONTR	ACTOR FILE NO.	12	то	ται ς	AMPLES	DIST	URBED	U	NDISTURBED (UD)
	Athena Tech		es		!		12.	10		AMPLES	1			
	IE OF DRILL						13.	то	TAL N	UMBER CORE B	OXES			
	Palmer McC					1	14.	ELE	EVATI	ON GROUND WA	TER			
	ECTION OF E	BORING	G	DEG. FR		BEARING					STA	RTED	İc	OMPLETED
	INCLINED						15.	DA	ТЕ ВО	RING	0	3-14-20	÷	08-14-20
тні	CKNESS OF	OVERE	BURDEN	0.0 Ft.			16.	ELE	EVATI	ON TOP OF BOR	ING	-26.6 Ft.		
							┣──			ECOVERY FOR B		9.3 Ft.		
DEP	TH DRILLED	INTO	ROCK	0.0 Ft.						JRE AND TITLE C				
тот	AL DEPTH C	F BOR	ING 1	1.0 Ft.			10.			an Barker P.G.	JF INSP	ECTOR		
LEV. (ft)	DEPTH (ft)	LEGEND				MATERIALS on measured value	es F	REC.	КШ			REMARKS		
26.6	- - -													
35.9	- - - - - 9.3			Silty	r sand, (SM).			1	Sample #1, D Mean (mm): 0 Fines (230): 1).11, Pł	ni Sorting: 0.4	1	
	-			En	d of Bor	ing								
	-													
	-													
	F													
	-													
	-													
	F													
	1	1 1												

DRI	LLING	LOG	DIVIS	IUN				TAL	ATIO					SHEET 1 OF 1 SHEETS
. PRO	JECT						9.	SIZE	AND	TYPE OF BIT	3.0 I	n.		
IE	3SP Sand S	Source	Survey				10.	со	ORDII	NATE SYSTEM/DAT		HORIZONT	۸L	VERTICAL
Z	ion, Illinois							S	tate I	Plane		NAD 198	33	IGLD MLW
BOR	ING DESIGN			LOCATION	COORD	INATES	11.	MA	NUFA	CTURER'S DESIGN	NATIO	N OF DRILL		AUTO HAMMER
V	′C-08			X = 1,13	35,664	Y = 2,111,681		٧	'ibrac	ore				MANUAL HAMMER
	LING AGEN				CONTR	ACTOR FILE NO.	12.	то	TAL S	AMPLES	1	URBED	U	NDISTURBED (UD)
	thena Tech		es				·				1			
							13.	то	TAL N	UMBER CORE BO	XES			
	almer McC						14.	ELI	EVATI	ON GROUND WAT	ER			
\boxtimes	CTION OF E VERTICAL	BORING	3	DEG. FRO VERTICA		BEARING	15.	DA	ГЕ ВО	RING	1	RTED 3-14-20	C	OMPLETED 08-14-20
	KNESS OF	OVERE	BURDEN	0.0 Ft.		•	16.	ELI	VATI	ON TOP OF BORIN		-35.1 Ft.		00 14 20
. DEP	TH DRILLED	інто	ROCK	0.0 Ft.						ECOVERY FOR BO		7.4 Ft.		
. тот	AL DEPTH O	F BOR	ING 9	.8 Ft.			18.			JRE AND TITLE OF nan Barker P.G.	F INSPI	ECTOR		
ELEV. (ft) -35.1	DEPTH (ft) 0.0	LEGEND				MATERIALS	es I	REC.	BOX OR SAMPLE			REMARKS		
-35.5	0.4	, <u>,</u>	_		e sand, (
-35.7/	0.6/		\	C	Clay, (CL	_)	_1			Sample #1, De	pth = 1	5'		
		៓៶							1	Mean (mm): 0.	12, Ph	i Sorting: 1.1	1	
	_								<u> </u>	Fines (230): 4.2	24% (\$	SW-SM)		
		°11-	Silty e	and clay lor	neoe at a	1.2'.1.0' and 2.3'								
	-	°	Silly S		ises at SW-SM	1.2', 1.9', and 2.3',).								
		°, I I		(,								
	-													
4.5.5	. .	°												
-40.3 -40.7	- <u>5.2</u> 5.6				lay, (CL)	\neg							
-40.1	- 3.0	<u> </u>	~	U	nay, (UL	-)-	\neg							
	-	.∵.		Fine	e sand, (SP)								
40 -				FINE	, sanu, (<u>o</u> -).								
-42.5	7.4	· · ·					-							
	_													
	-													
				E~	d of Bor	ina								
	_			EN		шg								
	_													
	-													
	-													
	-													
	_													
	_													
	-													
	-													

DRILLING LC	DG	DIVISIO	N			INS	TAL	LATIC	IN Desig				HEET 1 OF 1 SHEET	
1. PROJECT		I				9.	SIZE		TYPE OF BIT	3.0	In.		OF I SMEET	-
IBSP Sand Sou	irce Sui	rvey				10.	CO	ORDI	NATE SYSTEM/		HORIZONTAL	v	ERTICAL	_
Zion, Illinois									Plane		NAD 1983		IGLD MLW	
BORING DESIGNAT	ION			COORD	INATES	11.	MA	NUFA	CTURER'S DES	IGNATIO			O HAMMER	
VC-09			X = 1,138	,547	Y = 2,111,677		١	/ibrac	ore		E		NUAL HAMME	R
3. DRILLING AGENCY			1	CONTR	ACTOR FILE NO.	12	то	TAI 9	AMPLES	DIST	URBED	UND	ISTURBED (U	D)
Athena Technol	<u> </u>					12.		TAL 3		1				
A. NAME OF DRILLER						13.	то	TAL N	IUMBER CORE	BOXES				
Palmer McClella				_		14.	ELI	EVATI	ON GROUND W	ATER				
5. DIRECTION OF BOR	RING		DEG. FROM	vi	BEARING					STA	RTED	сом	PLETED	
			!			15.	DA	те вс	RING	30	3-14-20	08	8-14-20	
3. THICKNESS OF OVE	ERBUR	DEN	0.0 Ft.			16.	ELI	EVAT	ON TOP OF BO	RING	-48.1 Ft.			
						17	то	TAI 8	ECOVERY FOR	BORING	17.6 Ft.			
7. DEPTH DRILLED IN	TO ROC	CK ().0 Ft.						JRE AND TITLE					
8. TOTAL DEPTH OF B	BORING	22.	.0 Ft.						nan Barker P.G		Lorok			
ELEV. DEPTH (ft) -48.1 0.0	De				MATERIALS	es I	REC.	BOX OR SAMPLE			REMARKS			
			Fines	sand, (SP).			1	Sample #1, I Mean (mm): Fines (230):	0.22, Ph	i Sorting: 0.77			
- - - - - - - - - - - - - - - - - - -		Fine san	d with inter	beddeo	d clay layers, (SC).									-
- - - -65.6 17.5		Fine san	d with inter	beddeo	d clay layers, (SC).									
-														
AJ FORM 1836	MO		D FOR T	HE F	LORIDA DEP									

DF	RILLING	LOG	DIVISI	ON			INS	STAL	LATIO	N				HEET 1	1
	ROJECT						•	\$175		TYPE OF BIT	3.0	n		OF 1 SHEETS	1
	IBSP Sand S	Source S	Survey							NATE SYSTEM/DAT		HORIZONTAL	. iv	ERTICAL	
	Zion, Illinois									Plane		NAD 1983	·	IGLD MLW	-
2. BC	DRING DESIGN VC-10	ATION		LOCATION X = 1.13		Y = 2,101,157	11.		NUFA ⁄ibrac	CTURER'S DESIGI	NATION			TO HAMMER NUAL HAMMER	
3. DF	RILLING AGEN			, -		ACTOR FILE NO.	12.			AMPLES	1	URBED	UND	ISTURBED (UD)	1
4 N/	Athena Tech		S				<u> </u>				2				-
	Palmer McC						<u> </u>			UMBER CORE BO					-
	RECTION OF E	ORING		DEG. FRO	OM L	BEARING	14.	EL	EVATI	ON GROUND WAT	STAR		сом	PLETED	-
							15.	DA	TE BO	RING	1	-14-20		3-14-20	
6. TH	ICKNESS OF	OVERBL	JRDEN	0.0 Ft.			16.	ELI	EVATI	ON TOP OF BORIN	١G	-45.6 Ft.			
7. DE	EPTH DRILLED	INTO R	оск	0.0 Ft.						ECOVERY FOR BO		16 Ft.			
8. то	TAL DEPTH O	F BORII	NG 22	2.0 Ft.			18.			JRE AND TITLE OF an Barker P.G.	INSPE	ECTOR			
ELEV (ft)	(ft)	EGEND				MATERIALS	es l	REC.	Rm			REMARKS			1
-45. -47.	-			Silty S	and, (Sl	⊃-SM).			1	Sample #1, De Mean (mm): 0. Fines (230): 7.0	13, Phi	i Sorting: 0.50			(-
-51.3	335.7		Silty sa	nd with nu	merous	clay lenses, (SM).			2	Sample #2, De Mean (mm): 0. Fines (230): 10	12, Phi	i Sorting: 0.59			-
	-		Fine sa	nd with inte	erbeddeo	d clay layers, (SC).									-
-61.	- 6 16.0														- 1 -
	-														- - :
SAJ JUN 02	FORM 183	 6 №		D FOR	THE F	LORIDA DEP									Ţ

DRILLING LOG	DIVISION		INSTA		ON			SHEET 1
1. PROJECT			9. SI		D TYPE OF BIT	3.0 li	n	OF 1 SHEETS
IBSP Sand Source S	Survey		L		INATE SYSTEM/DAT		HORIZONTAL	VERTICAL
Zion, Illinois					Plane		NAD 1983	
2. BORING DESIGNATION	LOCATION	N COORDINATES	11. N	ANUF	ACTURER'S DESIGN	NATION		AUTO HAMMER
VC-11-C	X = 1,13	32,567 Y = 2,103,148		Vibra	core	·		MANUAL HAMMER
B. DRILLING AGENCY		CONTRACTOR FILE NO.	12. т	OTAL	SAMPLES		URBED	UNDISTURBED (UD)
Athena Technologie	>		42 7	0741	NUMBER CORE BO			!
Palmer McClellan								
5. DIRECTION OF BORING	DEG. FR	OM BEARING	14. E	LEVAT	ION GROUND WAT	-		
VERTICAL			15. D	ATE B	ORING	STAR 08	-14-20	COMPLETED 08-14-20
. THICKNESS OF OVERBL	IRDEN 0.0 Ft.		16. E	LEVAT	ION TOP OF BORIN		-50.2 Ft.	001120
					RECOVERY FOR BO		11.3 Ft.	
. DEPTH DRILLED INTO R	оск 0.0 Ft.		L		URE AND TITLE OF			
3. TOTAL DEPTH OF BORI	IG 12.0 Ft.				han Barker P.G.			
ELEV. DEPTH (ft) (ft) -50.2 0.0		TION OF MATERIALS ns based on measured value	es REC	SAMPLE			REMARKS	
-61.5 - 11.3 + 1	Silty	ν sand, (SM).		_1	Sample #1, De Mean (mm): 0. Fines (230): 15	16, Phi	Sorting: 0.67	
	En	nd of Boring						
AJ FORM 1836 M		THE FLORIDA DEP						

DRILLING	LOG	DIVISION		INS	TALL	ΑΤΙΟ	N		SHEET 1
I. PROJECT		1		9.	SI7F		TYPE OF BIT	3.0 ln.	OF 1 SHEETS
IBSP Sand S	Source S	Survey					NATE SYSTEM/DA		AL VERTICAL
Zion, Illinois							Plane	NAD 19	
2. BORING DESIGN	ATION	LOCATION CO	ORDINATES	11.				NATION OF DRILL	
VC-12		X = 1,134,23	36 Y = 2,103,168		Vi	brac	ore		
3. DRILLING AGEN	CY	co	NTRACTOR FILE NO.	12	тот	AI 6	AMPLES	DISTURBED	UNDISTURBED (UD
Athena Tech		S						2	
A. NAME OF DRILL				13.	тот	AL N	IUMBER CORE BO	XES	
Palmer McC 5. DIRECTION OF E		·		14.	ELE	VATI	ON GROUND WAT	ER	
	SURING	DEG. FROM VERTICAL	BEARING					STARTED	COMPLETED
		1		15.	DAT	E BO	RING	08-14-20	08-14-20
5. THICKNESS OF	OVERBU	URDEN 0.0 Ft.		16.	ELE	VATI	ON TOP OF BORI	NG -48.4 Ft.	
				17.	тот	AL R	ECOVERY FOR BO	DRING 19.1 Ft.	
7. DEPTH DRILLED		оск 0.0 Ft.					JRE AND TITLE O	-	
3. TOTAL DEPTH O	F BORIN	NG 22.0 Ft.			Jc	onath	an Barker P.G.		
ELEV. DEPTH	LEGEND	CLASSIFICATION Depths and elevations ba		es R	REC.	BOX OR SAMPLE		REMARKS	
-48.4 0.0	- °°°			+			Sample #1, De		
	، م				ŀ	1		32, Phi Sorting: 0.8	39
Γ	៓៓៓៰						Fines (230): 0.	0270 (300)	
ŀ	°°°°								
	。。。 。	Fine sand, clay lenses	a. 2.0 , and 2.7 , (SW)	•					
ŀ							Sample #2, De	pth = 3.7'	
L	် (ရ) ရ) စန (ရ) စ	0114.000			t	2	Mean (mm): 0.	13, Phi Sorting: 0.4	15
-52.9 4.5		Silty san	u, (SIVI <i>)</i> .		Ī		Fines (230): 14	1.49% (SM)	
		Fine sand with interbed	dded clay layers, (SC).						
-67.5 _ 19.1 _ - AJ FORM 183	<i>¥1,21,1</i> 2	IODIFIED FOR THI							

DRI	LLING	LOG	DIVIS						ATIO					SHEET 1 OF 1 SHEETS
PRO.	JECT						9.	SIZE	AND	TYPE OF BIT	3.0	In.		J. A UNEETS
	3SP Sand S		Survey				10.	co	ORDII	NATE SYSTEM/	DATUM	HORIZONTA	L	VERTICAL
	ion, Illinois									Plane		NAD 1983		IGLD MLW
	NG DESIGN C-13	NATION		LOCATION		Y = 2,110,647	11.		NUFA 'ibrac	CTURER'S DES	IGNATIO	N OF DRILL		JTO HAMMER ANUAL HAMMER
		ICY		χ-1,τ		ACTOR FILE NO.					DIST	TURBED		DISTURBED (UD)
A	thena Tech	nnologie	es		<u> </u>		12.	. то	TAL S	AMPLES	2			
							13.	то	TAL N	IUMBER CORE	BOXES			
	almer McC стіон ог і				OM	BEARING	- 14.	ELI	EVATI	ON GROUND W	ATER			
\boxtimes	/ERTICAL NCLINED	bonne		DEG. FRO VERTICA	L		15.	DA	ГЕ ВО	RING		RTED 8-13-20		MPLETED 08-13-20
тніс	KNESS OF	OVERB	URDEN	0.0 Ft.			16.	ELI	EVATI	ON TOP OF BO	RING	-52.0 Ft.		
DEPT			ROCK	0.0 Ft.			17.	то	TAL R	ECOVERY FOR	BORING	18.7 Ft.		
							- 18.	SIG	NATU	JRE AND TITLE	OF INSP	ECTOR		
1014	AL DEPTH C		NG 2	2.0 Ft.			1	J		nan Barker P.G	i.			
.ev. ft) 52.0	DEPTH (ft) 0.0	LEGEND				MATERIALS	ies	REC.	BOX OR SAMPLE			REMARKS		
52.7	0.7			Silty	sand, (SM).			1	Sample #1, Mean (mm)		0.5' ni Sorting: 1.38		
-	-									Fines (230):	24.12%	(SM)		
ſ	-									Sample #2,	Depth = :	3.0'		
ŀ	-								2	Mean (mm):	0.12, Pł	ni Sorting: 0.87		
										Fines (230):	28.71%	(SM)		
ŀ	-													
	_													
	-													
ŀ	-													
Γ	-													
ŀ	-													
			Fine sa	and with inte	ərhəddə	d clay layers, (SC								
ŀ	_		1 1110 30		SIDEUUE									
F	-													
	-													
ŀ	-													
ŀ	-													
	_													
ſ														
┝	-													
ŀ	-													
ļ	-													
70.7	- 18.7													
ŀ	•													
ŀ	_													
	_													
ſ	-													
		1 1												

			DIVIS	ION			INS	TAL	ATIC)N				SHEET 1
	ILLING	LOG		-										OF 1 SHEETS
1. PRO		~	2				9.	SIZE	AND	TYPE OF BIT	3.0	ln.		
	BSP Sand		Survey				10.			NATE SYSTEM/D	АТИМ	HORIZONT		VERTICAL
	Zion, Illinois RING DESIG			1004710						Plane	GNATIC	NAD 198	_	IGLD MLW
	/C-14	NATION		LOCATION		Y = 2,110,645	11.		nufa 'ibrac		GNATIO	IN OF DRILL		AUTO HAMMER MANUAL HAMMER
		NCY		<u> </u>		RACTOR FILE NO.	\vdash				DIS	TURBED		JNDISTURBED (UD)
A	Athena Tec	hnologi	es				12.	то	TAL S	AMPLES	3		i	
. NAN	IE OF DRIL	LER					13.	то	TAL N	UMBER CORE B	OXES			
	Palmer Mc0						14.	ELI	VAT	ION GROUND WA	TER			
\boxtimes	ECTION OF	BORIN)	DEG. FR	OM AL	BEARING	15	DA.		RING	STA	RTED	ļ	OMPLETED
	INCLINED						┥					8-13-20	!	08-13-20
5. THIO	CKNESS OF	OVER	URDEN	0.0 Ft.			16.	ELI	EVAT	ION TOP OF BOR	ING	-47.0 Ft.		
. DEP	TH DRILLE	D INTO	ROCK	0.0 Ft.						ECOVERY FOR				
з. тот	AL DEPTH	OF BOR	ING 2	22.0 Ft.			18.			ure and title on an Barker P.G.	OF INSP	ECTOR		
				-			<u> </u>	J						
ELEV. (ft)	DEPTH (ft)	EGEND				F MATERIALS d on measured valu		REC.	BOX OR SAMPLE			REMARKS		
-47.0	0.0	Ĕ	Depths a	ind elevation	ns base	u on measured valu		LU.	SAI					
										Sample #1, D	enth =	1 0'		
	F	·.··							1	Mean (mm): ().37, Pł	hi Sorting: 0.8	4	
										Fines (230): ().25% (SP)		
	F	$ \cdots $												
	L			Fine	e sand,	(SP).								
										Committee IIO D		4.01		
	╞	[····]							2	Sample #2, D Mean (mm): (8	
		[⊡]							لے	Fines (230): 2				
-52.2	- 5.2									Sample #3, D	enth -	6 0'		
	F								3	Mean (mm): ().13, Pl	hi Sorting: 0.4	5	
			:	Silty Sand v	vith trac	ce clay, (SM).			<u> </u>	Fines (230): 1				
	F		·	, cana v		<i>y</i> , (- <i>j</i> -								
-55.1	8.1													
	\vdash													
	F													
	F													
	L													
	╞													
			Fine sa	and with inte	erbedde	ed clay layers, (SC)								
	F					,,,,,								
	F													
	ŀ													
	L													
	Γ													
	\vdash													
	F													
	L													
	21.4													
-68.4	21.4													

JECT	200	•												
						-	0			0.0	1		OF 1 SHEETS	-
BSP Sand S	Source	Survey				<u> </u>	-		TYPE OF BIT	3.0	In. HORIZON	ITAI	VERTICAL	-
Zion, Illinois		,				"			Plane		NAD 1		IGLD MLW	
ING DESIGN		•	LOCATION		INATES	11			CTURER'S DESIG	NATIO	•		AUTO HAMMER	1
/C-15			X = 1,13	31,538	Y = 2,112,641		١	/ibrac	ore				MANUAL HAMMER	
				CONTR	ACTOR FILE NO.	12	. то	TAL S	AMPLES		TURBED		UNDISTURBED (UD))
		es		<u>.</u>		-								_
						13	. то	TAL N	IUMBER CORE BO	XES				_
ECTION OF E		G	DEG. FR	ом	BEARING	14	. EL	EVATI	ON GROUND WAT					
			VERTICA	NL.		15	. DA	ТЕ ВО	RING	-				
	OVERB	BURDEN	0.0 Ft		·	16	. EL	EVATI	ON TOP OF BORI	•			00-14-20	-
						┢					-	t.		-
TH DRILLED	ΙΝΤΟ	ROCK	0.0 Ft.											-
AL DEPTH O	F BOR	ing 2	2.0 Ft.				J	onath	nan Barker P.G.					
DEPTH (ft)	LEGEND					es	REC.	BOX OR SAMPLE			REMARK	S		
0.0														
Ļ	$ \cdots $							\square	Mean (mm): 0. Fines (230): 1	.22, Pł .13% (ni Sorting: 0 SP)	.76		F
			Fine	sand (SP)					(,			
F	$ \cdots $		1 110	, ().									┠
L	$\left \cdots \right $													L
3.4														
-														-
	 †‡†‡							2				.44		
_	╏┇┥┇┥╏	Cilt	المنابع والمستعم								(em)			ŀ
-	╏┽┇┽┇╽	Silty	sand with s	some cia	ay lenses, (SIVI).									ŀ
	ltiti													
-								2				48		F
- 7.8								<u></u>	Fines (230): 20	0.06%	(SM)	. 10		L
-														ŀ
_														
-														ŀ
-		Fine sa	and with inte	erbedde	d clay layers, (SC).									ŀ
-														ŀ
_														
F														ŀ
L														
														ſ
- 18.3														┢
F														ľ
F														
F														┠
														_
	/C-15 LING AGEN Athena Tech IE OF DRILL Palmer McC ECTION OF I CKNESS OF TH DRILLED AL DEPTH O DEPTH 0.0 - - - - - - - - - - - - -	AC-15 LING AGENCY Athena Technologi IE OF DRILLER Palmer McClellan ECTION OF BORING VERTICAL INCLINED CKNESS OF OVERE TH DRILLED INTO AL DEPTH OF BORING DEPTH (ff) 0.0 - - - - - - - - - - - - -	/C-15 LlING AGENCY Athena Technologies IE OF DRILLER Palmer McClellan ECTION OF BORING VERTICAL INCLINED CKNESS OF OVERBURDEN TH DRILLED INTO ROCK AL DEPTH OF BORING 0.0	ZC-15 X = 1,12 LING AGENCY Athena Technologies He of DRILLER Palmer McClellan CETION OF BORING DEG, FR. VERTICAL VERTICAL INCLINED 0.0 Ft. AL DEPTH OF BORING 22.0 Ft. DEPTH Question 0.0 AL DEPTH OF BORING 22.0 Ft. Depths and elevation 0.0 0.0 Fine 3.4 Fine 3.4 Fine Fine sand with intervet	/C-15 X = 1,131,538 LING AGENCY CONTR thena Technologies DEG. FROM Palmer McClellan DEG. FROM CKNESS OF OVERBURDEN 0.0 Ft. TH DRILLED INTO ROCK 0.0 Ft. AL DEPTH OF BORING 22.0 Ft. DEPTH G 0.0 Fine sand elevations based <t< td=""><td>ILING AGENCY X = 1,131,538 Y = 2,112,641 LING AGENCY CONTRACTOR FILE NO. Whena Technologies CONTRACTOR FILE NO. Palmer McClellan DEFO. FROM VERTICAL BEARING SCTION OF BORING VERTICAL DEFO. FROM VERTICAL BEARING INCLINED 0.0 Ft. TH DRILLED INTO ROCK 0.0 Ft. AL DEPTH OF BORING 22.0 Ft. Depths and elevations based on measured value 0.0 Fine sand, (SP). 3.4 7.8 <t< td=""><td>ILING AGENCY X = 1,131,538 Y = 2,112,641 LING AGENCY CONTRACTOR FILE NO. 12 Palmer McClellan 13 SCTION OF BORING DEC, FROM BEARING VERTICAL 14 NRESS OF OVERBURDEN 0.0 Ft. AL DEPTH OF BORING 22.0 Ft. Depths and elevations based on measured values 0.0 Fine sand, (SP). 7.8 Fine sand with interbedded clay layers, (SC).</td><td>ILING AGENCY X = 1,131,538 Y = 2,112,641 V LING AGENCY CONTRACTOR FILE NO. 12. TO' thena Technologies 13. TO Palmer McClellan 14. ELI CONTRACTOR FILE NO. 15. DA CONTRACTOR FILE NO. 14. ELI Palmer McClellan 15. DA INCLINED 0.0 Ft. INCLINED 0.0 Ft. INCLINED 0.0 Ft. INDRILLED INTO ROCK 0.0 Ft. INDRILLED INTO ROCK 0.0 Ft. IL DEPTH OF BORING 22.0 Ft. INCLISS OF OVERBURDEN 0.0 Ft. INDRILLED INTO ROCK 0.0 Ft. INDRILLED INTO R</td><td>VC-15 X = 1,131,538 Y = 2,112,641 Vibrac LING AGENCY CONTRACTOR FILE NO. 12. TOTAL S thena Technologies 13. TOTAL S Palmer McClellan 14. ELEVAT SKNESS OF OVERBURDEN 0.0 Ft. 15. TH DRILLED INTO ROCK 0.0 Ft. 16. AL DEPTH OF BORING 22.0 Ft. Jonatt Depths and elevations based on measured values REC. Signature 0.0 Fine sand, (SP). 1. 1. Fine sand, (SP). 3. Fine sand, (SP). 3.</td><td>VC-15 X = 1,131,538 Y = 2,112,641 Vibracore LING AGENCY CONTRACTOR FILE NO. 12. TOTAL SAMPLES Te OF DRILLER 13. TOTAL NUMBER CORE BO Pamer McClellan 14. ELEVATION GROUND WAT VERTICAL DEG. FROM BEARING XXELSS OF OVERBURDEN 0.0 FL 15. AL DEFTH OF BORING 22.0 FL Depths and elevations based on measured values 0.0 Fline sand, (SP). Fline sand, (SP). Sample #3. De </td><td>VIC-15 X = 1,131,538 Y = 2,112,641 Vibracore LING AGENCY CONTRACTOR FILE NO. 12. TOTAL SAMPLES DIS 12. TOTAL SAMPLES 13. TOTAL NUMBER CORE BOXES 14. ELEVATION GROUND WATER 13. TOTAL NUMBER CORE BOXES 14. ELEVATION GROUND WATER 15. DATE BORINO 14. DEPTH OF BORING 0.0 FL 15. DATE BORINO 17. TOTAL RECOVERY FOR BORING 15. DATE BORING 0.0 FL 17. TOTAL RECOVERY FOR BORING 18. Stanture And TILE OF INSPUSION 16. DEPTH OF BORING 22.0 FL 16. Stanture And TILE OF INSPUSION AND THE AND TILE OF INSPUSION 18. Stanture And TILE OF INSPUSION 16. DEPTH OF BORING 22.0 FL 16. Stanture And TILE OF INSPUSION AND THE AND TILE OF INSPUSION 17. TOTAL RECOVERY FOR BORING 17. DEPTH OF BORING 22.0 FL 18. Stanture And TILE OF INSPUSION 18. Stanture And TILE OF INSPUSION 18. 34. Fine sand (SP). 1 1 18. 34. Sample #2, Depth = 18. 34. 19. 0.0 10.0 10.0 .</td><td>C/C.15 X = 1,131,538 Y = 2,112,641 Vibracore LING AGENCY Mean Technologies CONTRACTOR FILE NO. 12. TOTAL SAMPLES 105TURBED 3 E C OF DRILLER Almer MC/Clellan 13. TOTAL NUMBER CORE BOXES 14. ELEVATION OF BORING VERTICAL INCLINED DEG. FROM VERTICAL VERTICAL INCLINED 16. DATE BORING VERTICAL VERTICAL INCLINED 16. DATE BORING VERTICAL VERTICAL INCLINED 0.0 FL XXNESS OF OVERBURDEN INCLINED 0.0 FL 17. TOTAL RECOVERY FOR BORING 20.0 FL 16. SIGNATURE AND TITLE OF INSPECTOR Jonathan Barker P.G. Depths and elevations based on measured values INCLASS INCLASSFICATION OF NATERIALS. INCLINED Image: State Price State Jonathan Barker P.G. 16. Sample #1, Depth = 0.5 fM Mean (mm: 0.2, PH.Sorting: 0 Fines (230): 11.13% (SP) Image: True of the state Stilly sand with some clay lenses, (SM). 1 1 Sample #3, Depth = 7.5 Mean (mm: 0.11, PH Sorting: 0 Fines (230): 11.196 % (SM) Image: True sand, with interbedded clay layers, (SC). 1 18. Sample #3, Depth = 7.5 Mean (mm: 0.11, PH Sorting: 0 Fines (230): 20.06% (SM) 1 Image: True sand with interbedded clay layers, (SC). 1 1 1 1 Image: True sand with interbedded clay layers, (SC). 1 1 1 1</td><td>CC15 X = 1,131,533 Y = 2,112,641 Vibracore Disturbed LING AGENCY CONTRACTOR FILE NO. 12. TOTAL SAMPLES 3 IE OF DRILLER 3 13. TOTAL AURGER CORE BOXES Almer McClellan 14. ELEVATION GROUND WATER VETICAL VERTICAL STARTED NICLINED 0.0 FL 15. DATE BORING 57ARTED WHICKS OF OVERBURDEN 0.0 FL 15. LEVATION GROUND WATER 49.4 FL WHORLDENTO ROCK 0.0 FL 16. ELEVATION OF DO PORING 49.4 FL Jonathan Barker P.G. Jonathan Barker P.G. Jonathan Barker P.G. REMARKS 0.0 1 Fine sand, (SP). 1 Sample #1, Depth = 0.5' Fines (230): 1.13% (SP) 5 Sample #2, Depth = 4.5'' Mean (rmm): 0.11, Phi Sorting: 0.48 Sample #3, Depth = 7.5' <td>C-15 X = 1.131.63 Y = 2.112.641 Vibrace Image: Contraction of the technologies there of multar CONTRACTOR FILE NO. 12. TOTAL SAMPLES Image: Contraction of the technologies Image: Contraction of the technologies Image: Contraction of technologies Image: Contechnologies Image: Contraction of t</td></td></t<></td></t<>	ILING AGENCY X = 1,131,538 Y = 2,112,641 LING AGENCY CONTRACTOR FILE NO. Whena Technologies CONTRACTOR FILE NO. Palmer McClellan DEFO. FROM VERTICAL BEARING SCTION OF BORING VERTICAL DEFO. FROM VERTICAL BEARING INCLINED 0.0 Ft. TH DRILLED INTO ROCK 0.0 Ft. AL DEPTH OF BORING 22.0 Ft. Depths and elevations based on measured value 0.0 Fine sand, (SP). 3.4 7.8 <t< td=""><td>ILING AGENCY X = 1,131,538 Y = 2,112,641 LING AGENCY CONTRACTOR FILE NO. 12 Palmer McClellan 13 SCTION OF BORING DEC, FROM BEARING VERTICAL 14 NRESS OF OVERBURDEN 0.0 Ft. AL DEPTH OF BORING 22.0 Ft. Depths and elevations based on measured values 0.0 Fine sand, (SP). 7.8 Fine sand with interbedded clay layers, (SC).</td><td>ILING AGENCY X = 1,131,538 Y = 2,112,641 V LING AGENCY CONTRACTOR FILE NO. 12. TO' thena Technologies 13. TO Palmer McClellan 14. ELI CONTRACTOR FILE NO. 15. DA CONTRACTOR FILE NO. 14. ELI Palmer McClellan 15. DA INCLINED 0.0 Ft. INCLINED 0.0 Ft. INCLINED 0.0 Ft. INDRILLED INTO ROCK 0.0 Ft. INDRILLED INTO ROCK 0.0 Ft. IL DEPTH OF BORING 22.0 Ft. INCLISS OF OVERBURDEN 0.0 Ft. INDRILLED INTO ROCK 0.0 Ft. INDRILLED INTO R</td><td>VC-15 X = 1,131,538 Y = 2,112,641 Vibrac LING AGENCY CONTRACTOR FILE NO. 12. TOTAL S thena Technologies 13. TOTAL S Palmer McClellan 14. ELEVAT SKNESS OF OVERBURDEN 0.0 Ft. 15. TH DRILLED INTO ROCK 0.0 Ft. 16. AL DEPTH OF BORING 22.0 Ft. Jonatt Depths and elevations based on measured values REC. Signature 0.0 Fine sand, (SP). 1. 1. Fine sand, (SP). 3. Fine sand, (SP). 3.</td><td>VC-15 X = 1,131,538 Y = 2,112,641 Vibracore LING AGENCY CONTRACTOR FILE NO. 12. TOTAL SAMPLES Te OF DRILLER 13. TOTAL NUMBER CORE BO Pamer McClellan 14. ELEVATION GROUND WAT VERTICAL DEG. FROM BEARING XXELSS OF OVERBURDEN 0.0 FL 15. AL DEFTH OF BORING 22.0 FL Depths and elevations based on measured values 0.0 Fline sand, (SP). Fline sand, (SP). Sample #3. De </td><td>VIC-15 X = 1,131,538 Y = 2,112,641 Vibracore LING AGENCY CONTRACTOR FILE NO. 12. TOTAL SAMPLES DIS 12. TOTAL SAMPLES 13. TOTAL NUMBER CORE BOXES 14. ELEVATION GROUND WATER 13. TOTAL NUMBER CORE BOXES 14. ELEVATION GROUND WATER 15. DATE BORINO 14. DEPTH OF BORING 0.0 FL 15. DATE BORINO 17. TOTAL RECOVERY FOR BORING 15. DATE BORING 0.0 FL 17. TOTAL RECOVERY FOR BORING 18. Stanture And TILE OF INSPUSION 16. DEPTH OF BORING 22.0 FL 16. Stanture And TILE OF INSPUSION AND THE AND TILE OF INSPUSION 18. Stanture And TILE OF INSPUSION 16. DEPTH OF BORING 22.0 FL 16. Stanture And TILE OF INSPUSION AND THE AND TILE OF INSPUSION 17. TOTAL RECOVERY FOR BORING 17. DEPTH OF BORING 22.0 FL 18. Stanture And TILE OF INSPUSION 18. Stanture And TILE OF INSPUSION 18. 34. Fine sand (SP). 1 1 18. 34. Sample #2, Depth = 18. 34. 19. 0.0 10.0 10.0 .</td><td>C/C.15 X = 1,131,538 Y = 2,112,641 Vibracore LING AGENCY Mean Technologies CONTRACTOR FILE NO. 12. TOTAL SAMPLES 105TURBED 3 E C OF DRILLER Almer MC/Clellan 13. TOTAL NUMBER CORE BOXES 14. ELEVATION OF BORING VERTICAL INCLINED DEG. FROM VERTICAL VERTICAL INCLINED 16. DATE BORING VERTICAL VERTICAL INCLINED 16. DATE BORING VERTICAL VERTICAL INCLINED 0.0 FL XXNESS OF OVERBURDEN INCLINED 0.0 FL 17. TOTAL RECOVERY FOR BORING 20.0 FL 16. SIGNATURE AND TITLE OF INSPECTOR Jonathan Barker P.G. Depths and elevations based on measured values INCLASS INCLASSFICATION OF NATERIALS. INCLINED Image: State Price State Jonathan Barker P.G. 16. Sample #1, Depth = 0.5 fM Mean (mm: 0.2, PH.Sorting: 0 Fines (230): 11.13% (SP) Image: True of the state Stilly sand with some clay lenses, (SM). 1 1 Sample #3, Depth = 7.5 Mean (mm: 0.11, PH Sorting: 0 Fines (230): 11.196 % (SM) Image: True sand, with interbedded clay layers, (SC). 1 18. Sample #3, Depth = 7.5 Mean (mm: 0.11, PH Sorting: 0 Fines (230): 20.06% (SM) 1 Image: True sand with interbedded clay layers, (SC). 1 1 1 1 Image: True sand with interbedded clay layers, (SC). 1 1 1 1</td><td>CC15 X = 1,131,533 Y = 2,112,641 Vibracore Disturbed LING AGENCY CONTRACTOR FILE NO. 12. TOTAL SAMPLES 3 IE OF DRILLER 3 13. TOTAL AURGER CORE BOXES Almer McClellan 14. ELEVATION GROUND WATER VETICAL VERTICAL STARTED NICLINED 0.0 FL 15. DATE BORING 57ARTED WHICKS OF OVERBURDEN 0.0 FL 15. LEVATION GROUND WATER 49.4 FL WHORLDENTO ROCK 0.0 FL 16. ELEVATION OF DO PORING 49.4 FL Jonathan Barker P.G. Jonathan Barker P.G. Jonathan Barker P.G. REMARKS 0.0 1 Fine sand, (SP). 1 Sample #1, Depth = 0.5' Fines (230): 1.13% (SP) 5 Sample #2, Depth = 4.5'' Mean (rmm): 0.11, Phi Sorting: 0.48 Sample #3, Depth = 7.5' <td>C-15 X = 1.131.63 Y = 2.112.641 Vibrace Image: Contraction of the technologies there of multar CONTRACTOR FILE NO. 12. TOTAL SAMPLES Image: Contraction of the technologies Image: Contraction of the technologies Image: Contraction of technologies Image: Contechnologies Image: Contraction of t</td></td></t<>	ILING AGENCY X = 1,131,538 Y = 2,112,641 LING AGENCY CONTRACTOR FILE NO. 12 Palmer McClellan 13 SCTION OF BORING DEC, FROM BEARING VERTICAL 14 NRESS OF OVERBURDEN 0.0 Ft. AL DEPTH OF BORING 22.0 Ft. Depths and elevations based on measured values 0.0 Fine sand, (SP). 7.8 Fine sand with interbedded clay layers, (SC).	ILING AGENCY X = 1,131,538 Y = 2,112,641 V LING AGENCY CONTRACTOR FILE NO. 12. TO' thena Technologies 13. TO Palmer McClellan 14. ELI CONTRACTOR FILE NO. 15. DA CONTRACTOR FILE NO. 14. ELI Palmer McClellan 15. DA INCLINED 0.0 Ft. INCLINED 0.0 Ft. INCLINED 0.0 Ft. INDRILLED INTO ROCK 0.0 Ft. INDRILLED INTO ROCK 0.0 Ft. IL DEPTH OF BORING 22.0 Ft. INCLISS OF OVERBURDEN 0.0 Ft. INDRILLED INTO ROCK 0.0 Ft. INDRILLED INTO R	VC-15 X = 1,131,538 Y = 2,112,641 Vibrac LING AGENCY CONTRACTOR FILE NO. 12. TOTAL S thena Technologies 13. TOTAL S Palmer McClellan 14. ELEVAT SKNESS OF OVERBURDEN 0.0 Ft. 15. TH DRILLED INTO ROCK 0.0 Ft. 16. AL DEPTH OF BORING 22.0 Ft. Jonatt Depths and elevations based on measured values REC. Signature 0.0 Fine sand, (SP). 1. 1. Fine sand, (SP). 3. Fine sand, (SP). 3.	VC-15 X = 1,131,538 Y = 2,112,641 Vibracore LING AGENCY CONTRACTOR FILE NO. 12. TOTAL SAMPLES Te OF DRILLER 13. TOTAL NUMBER CORE BO Pamer McClellan 14. ELEVATION GROUND WAT VERTICAL DEG. FROM BEARING XXELSS OF OVERBURDEN 0.0 FL 15. AL DEFTH OF BORING 22.0 FL Depths and elevations based on measured values 0.0 Fline sand, (SP). Fline sand, (SP). Sample #3. De	VIC-15 X = 1,131,538 Y = 2,112,641 Vibracore LING AGENCY CONTRACTOR FILE NO. 12. TOTAL SAMPLES DIS 12. TOTAL SAMPLES 13. TOTAL NUMBER CORE BOXES 14. ELEVATION GROUND WATER 13. TOTAL NUMBER CORE BOXES 14. ELEVATION GROUND WATER 15. DATE BORINO 14. DEPTH OF BORING 0.0 FL 15. DATE BORINO 17. TOTAL RECOVERY FOR BORING 15. DATE BORING 0.0 FL 17. TOTAL RECOVERY FOR BORING 18. Stanture And TILE OF INSPUSION 16. DEPTH OF BORING 22.0 FL 16. Stanture And TILE OF INSPUSION AND THE AND TILE OF INSPUSION 18. Stanture And TILE OF INSPUSION 16. DEPTH OF BORING 22.0 FL 16. Stanture And TILE OF INSPUSION AND THE AND TILE OF INSPUSION 17. TOTAL RECOVERY FOR BORING 17. DEPTH OF BORING 22.0 FL 18. Stanture And TILE OF INSPUSION 18. Stanture And TILE OF INSPUSION 18. 34. Fine sand (SP). 1 1 18. 34. Sample #2, Depth = 18. 34. 19. 0.0 10.0 10.0 .	C/C.15 X = 1,131,538 Y = 2,112,641 Vibracore LING AGENCY Mean Technologies CONTRACTOR FILE NO. 12. TOTAL SAMPLES 105TURBED 3 E C OF DRILLER Almer MC/Clellan 13. TOTAL NUMBER CORE BOXES 14. ELEVATION OF BORING VERTICAL INCLINED DEG. FROM VERTICAL VERTICAL INCLINED 16. DATE BORING VERTICAL VERTICAL INCLINED 16. DATE BORING VERTICAL VERTICAL INCLINED 0.0 FL XXNESS OF OVERBURDEN INCLINED 0.0 FL 17. TOTAL RECOVERY FOR BORING 20.0 FL 16. SIGNATURE AND TITLE OF INSPECTOR Jonathan Barker P.G. Depths and elevations based on measured values INCLASS INCLASSFICATION OF NATERIALS. INCLINED Image: State Price State Jonathan Barker P.G. 16. Sample #1, Depth = 0.5 fM Mean (mm: 0.2, PH.Sorting: 0 Fines (230): 11.13% (SP) Image: True of the state Stilly sand with some clay lenses, (SM). 1 1 Sample #3, Depth = 7.5 Mean (mm: 0.11, PH Sorting: 0 Fines (230): 11.196 % (SM) Image: True sand, with interbedded clay layers, (SC). 1 18. Sample #3, Depth = 7.5 Mean (mm: 0.11, PH Sorting: 0 Fines (230): 20.06% (SM) 1 Image: True sand with interbedded clay layers, (SC). 1 1 1 1 Image: True sand with interbedded clay layers, (SC). 1 1 1 1	CC15 X = 1,131,533 Y = 2,112,641 Vibracore Disturbed LING AGENCY CONTRACTOR FILE NO. 12. TOTAL SAMPLES 3 IE OF DRILLER 3 13. TOTAL AURGER CORE BOXES Almer McClellan 14. ELEVATION GROUND WATER VETICAL VERTICAL STARTED NICLINED 0.0 FL 15. DATE BORING 57ARTED WHICKS OF OVERBURDEN 0.0 FL 15. LEVATION GROUND WATER 49.4 FL WHORLDENTO ROCK 0.0 FL 16. ELEVATION OF DO PORING 49.4 FL Jonathan Barker P.G. Jonathan Barker P.G. Jonathan Barker P.G. REMARKS 0.0 1 Fine sand, (SP). 1 Sample #1, Depth = 0.5' Fines (230): 1.13% (SP) 5 Sample #2, Depth = 4.5'' Mean (rmm): 0.11, Phi Sorting: 0.48 Sample #3, Depth = 7.5' <td>C-15 X = 1.131.63 Y = 2.112.641 Vibrace Image: Contraction of the technologies there of multar CONTRACTOR FILE NO. 12. TOTAL SAMPLES Image: Contraction of the technologies Image: Contraction of the technologies Image: Contraction of technologies Image: Contechnologies Image: Contraction of t</td>	C-15 X = 1.131.63 Y = 2.112.641 Vibrace Image: Contraction of the technologies there of multar CONTRACTOR FILE NO. 12. TOTAL SAMPLES Image: Contraction of the technologies Image: Contraction of the technologies Image: Contraction of technologies Image: Contechnologies Image: Contraction of t

DDU 1 111	1.00	DIVISION		INSTA	LLATIO	N			SHEET 1
DRILLING	LOG								OF 1 SHEETS
. PROJECT	~ ~			9. SI	ZE AND	TYPE OF BIT	3.0 ln.		
IBSP Sand		rvey	ſ	10. C		NATE SYSTEM/	1	ZONTAL	VERTICAL
Zion, Illinois					State			D 1983	IGLD MLW
2. BORING DESIG VC-16	NATION			11. N			IGNATION OF DR	urr 🗖	AUTO HAMMER
B. DRILLING AGEI			Y = 2,112,657		Vibrad	ore	DISTURBED	L	UNDISTURBED (UD)
Athena Tec				12. T	OTAL S	SAMPLES	3		
I. NAME OF DRILL				13. T		UMBER CORE			:
Palmer Mc0	Clellan		F						
5. DIRECTION OF	BORING	DEG. FROM	BEARING	14. E	LEVAT	ION GROUND W			
VERTICAL		VERTICAL		15. D	ATE BO	DRING	STARTED 08-13-20		08-13-20
6. THICKNESS OF	OVERBUR			46 E		ION TOP OF BO	•		00-10-20
	OVERBOR	0.0 Ft.							
. DEPTH DRILLEI	D INTO RO	ск 0.0 Ft.	Let a construct the second sec			RECOVERY FOR		.7 Ft.	
3. TOTAL DEPTH		22.0 Ft.		18. S		ure and title nan Barker P.G	OF INSPECTOR		
	•						-		
ELEV. DEPTH	L L L	CLASSIFICATION C			뛄		REMA	RKS	
(ft) (ft) -48.1 0.0		epths and elevations base	ea on measured values	5 RE(BOX OR SAMPLE				
	°°°					Sample #1, I			
Ļ	° <i>°°</i>	Fine Sand,	(SW).		1		0.40, Phi Sortin 1.24% (SW)	g: 1.05	
-49.9 1.8			· /			Sample #2, [
					2	Mean (mm):	0.31, Phi Sortin	g: 0.84	
	$ \cdots $					Fines (230):	0.29% (SP)		
ŀ	$ \cdot\cdot $								
Ļ		Fine sand, clay len	s at 3.2', (SP).						
	$ \cdots $								
-53.4 5.3						Sample #3, [Depth = 5.5'		
					3	Mean (mm):	0.13, Phi Sortin 3.47% (SP-SM)	g: 0.36	
F		Silty sand, (S	SP-SM).				J.41 /0 (JP-JIVI)		
-55.3 - 7.2	:-								
ŀ									
ľ									
L									
ŀ									
ľ									
Ļ									
ŀ		Fine sand with interbedd	ed clay layers, (SC).						
F									
Ļ									
ŀ									
F									
L									
ſ									
\vdash									
-68.8 20.7									
ŀ									
	1 1								

DRI	LLING	LOG	DIVISIO	ON			IN	STAL	LATIC	N				ET 1
I. PRO	JECT						9.	SIZE		TYPE OF BIT	3.0	In		1 SHEETS
11	BSP Sand S	Source	Survey							NATE SYSTEM/DA		HORIZONTAL	VEP	TICAL
	ion, Illinois		2				''			Plane		NAD 1983		
	ING DESIGN		i i	LOCATION	COOR	DINATES	11				NATIO		•	
	/C-17					Y = 2,112,7			/ibrac					AL HAMMER
	LING AGEN					RACTOR FILE N	10.				DIST			TURBED (UD)
	thena Tech		es				12	. то	TAL S	AMPLES	2			
	E OF DRILL	<u> </u>					13	то	TAI N	IUMBER CORE BO				
F	almer McC	lellan												
	CTION OF	BORING	3	DEG. FRO	м	BEARING	14	. EL	EVATI	ON GROUND WAT	-			
	VERTICAL INCLINED			VERTICA	L		15	. DA	ТЕ ВС	RING	1	RTED 3-13-20	СОМРL 08-1	ЕТЕР 3-20
. тніс	KNESS OF	OVERB	URDEN	0.0 Ft.			16	. EL	EVATI	ON TOP OF BORI	NG	-42.1 Ft.		
. DEP	TH DRILLED	ΙΝΤΟΙ	ROCK	0.0 Ft.						ECOVERY FOR B		16.4 Ft.		
. тот	AL DEPTH C	OF BOR	ING 21	.0 Ft.			10			an Barker P.G.	r INJP	ECTOR		
ELEV. (ft) -42.1	DEPTH (ft) 0.0	LEGEND				MATERIALS	values	% REC.	BOX OR SAMPLE			REMARKS		
									1	Sample #1, De Mean (mm): 0.	20, Ph	i Sorting: 0.63		
	F	 		Fine	sand, ((SP).				Fines (230): 0.	70% (SP)		
-44.2	0.1								2	Sample #2, De Mean (mm): 0.				
-44.2	<u> </u>		<u></u>	Silty sa	and (SI	P-SM).	~			Fines (230): 5.	08% (SP-SM)		
-58.5	- - - - - - - - - - - - -		Fine sar	nd with inte	rbedde	d clay layers, i	(SC).							
	-													
					d of Bor									

DRILLIN	NG LO	G	DIVISION			INS	STAL	LATIC	ON			SHEET 1				
. PROJECT			1			9.	SIZE	AND	TYPE OF BIT	3.0 ln.		OF 1 SHEETS				
IBSP Sa	and Sourc	ce Su	irvey			10.	. co	ORDI	NATE SYSTEM/DAT		TAL	VERTICAL				
Zion, Illii	inois						S	state	Plane	NAD 1	983	IGLD MLW				
. BORING DE	SIGNATIO	ON	LOCATION			11. MANUFACTURER'S DESIGNATION OF DRILL AUTO HAMMER										
VC-18	VC-18 X = 1,138,958 Y = 2,112,6							Vibracore MANUAL HAMMER								
	Technolo	nies		CONTR	ACTOR FILE NO.	12.	. то	TAL S	AMPLES	DISTURBED		NDISTURBED (UD)				
. NAME OF DI		gics		!		13	то	TAI N	UMBER CORE BO							
Palmer I	McClellar	n														
. DIRECTION		NG	DEG. FRO	м	BEARING	14.	. ELI	EVAT	ION GROUND WAT	•	ia	OMPLETED				
				-		15.	. DA	те вс	DRING	STARTED 08-14-20		08-14-20				
. THICKNESS		RBUR				16	. ELI	ΞνΔΤ	ION TOP OF BORIN	•	÷	001120				
						┢──					4					
7. DEPTH DRIL		O RO	ск 0.0 Ft.						RECOVERY FOR BO		ι.					
B. TOTAL DEP	тн ог во	RING	3 22.0 Ft.			'''			nan Barker P.G.	MSPECTOR						
ELEV. DEPT (ft) (ft)	HT ()	D	CLASSIFICA epths and elevatior		MATERIALS	es	REC.	КШ		REMARKS	3					
-40.8 0.0						_		_0,								
L								4	Sample #1, De Mean (mm): 0.4	pth = 1.0' 40, Phi Sorting: 0.	.98					
Γ	° °	°						_1_	Fines (230): 0.2	28% (SW)						
ŀ	ໍ່ໍ	° •														
	°°°	, ,	Fine	sand, (SW).											
F		, °														
L	٠°،	Ì							Sample #2, De	oth = 4 5'						
-45.6 4	4.8	, •						2	Mean (mm): 0.	33, Phi Sorting: 1.	.07					
	5.0	影	Silty	sand, (SM).	\neg		3	Fines (230): 1. Sample #3, De	94% (SW)						
										ptri = 4.9 12, Phi Sorting: 0.	.94					
-									Fines (230): 17							
		8														
-																
Γ																
_																
F		3														
L		3														
			Fine sand with inte	arhedda	d clav lavere (SC)											
ŀ					a olay layers, (30).											
ľ																
F																
F																
L		3														
		3														
ŀ																
F																
<u>-61.1 20</u>	0.3	4														
ŀ																
	1836	MC	DIFIED FOR	THE F	LORIDA DEP											

	DIVISION	
DRILLING LOG	DIVISION	INSTALLATION SHEET 1 OF 1 SHEETS
PROJECT		9. SIZE AND TYPE OF BIT 3.0 In.
IBSP Sand Source Su	irvey	10. COORDINATE SYSTEM/DATUM HORIZONTAL VERTICAL
Zion, Illinois		State Plane NAD 1983 IGLD MLW
BORING DESIGNATION	LOCATION COORDINATES	11. MANUFACTURER'S DESIGNATION OF DRILL AUTO HAMMER
VC-19	X = 1,140,337 Y = 2,114,19	
DRILLING AGENCY	CONTRACTOR FILE N	12. TOTAL SAMPLES
Athena Technologies		2
Palmer McClellan		13. TOTAL NUMBER CORE BOXES
	DEG. FROM BEARING	14. ELEVATION GROUND WATER
	DEG. FROM BEARING VERTICAL	15. DATE BORING STARTED COMPLETED 08-14-20 08-14-20
THICKNESS OF OVERBUR	DEN 0.0 Ft.	16. ELEVATION TOP OF BORING -38.5 Ft.
DEPTH DRILLED INTO ROO	ск 0.0 Ft.	17. TOTAL RECOVERY FOR BORING 10 Ft.
		18. SIGNATURE AND TITLE OF INSPECTOR
TOTAL DEPTH OF BORING	1 7.0 Ft.	Jonathan Barker P.G.
LEV. (ft) DEPTH (ft) Q S S S S D C -38.5 0.0 0 0	CLASSIFICATION OF MATERIALS epths and elevations based on measured v	
-39.7 - 1.2	Fine sand, (SW).	Sample #1, Depth = 0.5' Mean (mm): 0.27, Phi Sorting: 0.97 Fines (230): 3.24% (SW)
	Fine sand with interbedded clay layers, (S	
		Sample #2, Depth = 2.5'
-41.5 3.0	Silty sand, (SP-SM).	Mean (mm): 0.11, Phi Sorting: 0.62 Fines (230): 6.54% (SP-SM)
- - - - - - - - - - - - -	Fine sand with interbedded clay layers, (\$	>).
	End of Boring	

DP	ILLING	100	DIVISI	ON			INS	TAL	ATIO	DN	-		SH	EET 1
DK		LUG										lu.	0	F 1 SHEETS
	BSP Sand S	Source	Survey							TYPE OF BIT	3.0			
	Zion, Illinois		Survey				10.			NATE SYSTEM/I	DATUM			
	RING DESIGN		. ;	LOCATION			11			Plane CTURER'S DES	IGNATIO	NAD 1983	·	
	VC-20					Y = 2,115,192	1		'ibrac					JAL HAMMER
		ICY	•	,	· ·	ACTOR FILE NO.					DIS	TURBED	UNDIS	TURBED (UD)
	Athena Tech		es		<u>i</u>		12.	то	TAL S	SAMPLES	2		1	
	IE OF DRILL						13.	то	TAL N		BOXES			
	Palmer McC			'			14.	ELI	VATI	ION GROUND W	ATER			
\boxtimes	ECTION OF	BORING	5	DEG. FRO VERTICA		BEARING	15.	DA	ГЕ ВО	RING		RTED 8-14-20	СОМР	L ETED 14-20
. тні	CKNESS OF	OVERE	BURDEN	0.0 Ft.			16.	ELI	EVATI	ION TOP OF BO	RING	-42.9 Ft.		
. DEP	TH DRILLED	інто	ROCK	0.0 Ft.			17.	то	TAL R	RECOVERY FOR	BORING	19.8 Ft.		
							18.			URE AND TITLE		ECTOR		
. т о т	TAL DEPTH C	JF BOR	ing 2	1.0 Ft.			L	J	_	nan Barker P.G				
ELEV. (ft) -42.9	DEPTH (ft) 0.0	LEGEND				MATERIALS I on measured valu	es F	REC.	BOX OR SAMPLE			REMARKS		
72.3	0.0	t:::t					\neg			Sample #1, I	Donth -	1.0'		
	F	$ \cdots $							1	Mean (mm):	0.16, Pl	hi Sorting: 0.54		
										Fines (230):				
	ŀ	$ \cdots $	Fine sa	and, clay le	nses at	3.3' and 3.4', (SP).								
		· · · ·												
-46.5	3.6	[:::]								Sample #2,	Depth =	3.7'		
-46.8	3.9		~	Silty	[,] sand, (SM).	コ		_2_	Mean (mm): Fines (230):	0.13, Pl 11 01%	hi Sorting: 0.77 (SM)		
	-		Fine sa	nd with inte	erbedde	d clay layers, (SC)								
-61.9	19.0													
-62.7	19.8	$\left \begin{array}{c} \vdots \\ \vdots \\ \end{array} \right $		Fine	e sand, (SP).								
	-			E-	d of Po-	ina								
	1	1		En	d of Bor	шg				1				