

NOTES

- PRIMARY PROJECT HORIZONTAL CONTROL IS ALASKA STATE PLANE, ZONE 1, NAD83, (2011)2010.00, IN US SURVEY FEET BASED ON A FULLY CONSTRAINED STATIC GPS NETWORK HOLDING THE PUBLISHED NAD83 2010.00 EPOCH VALUES OF NSG CORS STATIONS: "LEVEL ISLAND 5 CORS ARP" (PID DJ0303), "JUNEAU WAAS 1 CORS ARP" (PID DF4307), "SIKKA CORS ARP" (PID DQ2572), "GUSTAVUS 5 CORS ARP" (PID DK6229), AND "PORTALEXAN AK 2005 CORS ARP" (PID DL6895).
- LOCAL PROJECT HORIZONTAL CONTROL IS ALASKA STATE PLANE, ZONE 1, NAD83, IN US SURVEY FEET HOLDING "CORN 2 1948" (PID UV0936/VMM20991) AS N 1,981,343.46' E 2,310,559.44' AND "WHN-3 2001" (PID BFFZ34) AS N 1,983,773.86' E 2,310,359.17'.
- VERTICAL CONTROL IS MEAN LOWER LOW WATER (MLLW = 0.0'), BASED ON THE NOAA/NOS TIDAL BENCHMARK LIST: "945 1741 WHITESTONE NARROWS, NEVA STRAIT, ALASKA" PUBLISHED 07/14/2014. THIS TIDAL DATUM IS BASED ON THE 1983-2001 TIDAL EPOCH AND IS REFERENCED BY HOLDING NOAAUSCGS TIDAL BENCHMARK "CORN 2 1948" (PID UV0936/VMM20991) AS 9.89'.
- VERTICAL TIES TO THE NATIONAL SPATIAL REFERENCE SYSTEM ARE BASED ON PUBLISHED NAVD88 (GEOID12B) ELEVATIONS HOLDING NOAAUSCGS TIDAL BENCHMARK "CORN 2 1948" (PID UV0936/VMM20991) AS 9.48'.
- SOUNDINGS ARE IN FEET AND ARE MINUS UNLESS OTHERWISE INDICATED.
- BATHYMETRY WAS COLLECTED APRIL 27 & 29, 2018. SOUNDINGS WERE COLLECTED USING AN RZSONIC 2022 MULTIBeam ECHOSOUNDER OPERATING AT 200 KHZ SOUND VELOCITY THOUGH THE WATER COLUMN WAS DETERMINED WITH AN AML BASE X SOUND VELOCITY PROBE. POSITION AND VESSEL ORIENTATION WERE MEASURED USING AN APPLIX POSHY WAVEMASTER VS SYSTEM. DATA WAS COLLECTED USING GINSY 8.1 AND PROCESSED USING QIMERA 1.5 SOFTWARE. HORIZONTAL CONTROL WAS SURVEYED USING STATIC GNSS EQUIPMENT AND TECHNIQUES. VERTICAL CONTROL WAS SURVEYED USING STATIC GNSS AND DIFFERENTIAL LEVELING EQUIPMENT AND TECHNIQUES.
- THIS DRAWING INDICATES GENERAL CONDITIONS AT THE TIME OF THE SURVEY.
- MAP SOUNDINGS ARE BINNED AT 24 FEET AND ARE SHOAL-BIASED. CONTOURS ARE BASED ON 12 FEET BINNED SHOAL-BIASED SOUNDINGS. VOLUME SOUNDINGS ARE BINNED AT 3 FEET AND ARE MEAN VALUE SOUNDINGS.

SURVEY CONTROL DATA				
STATION	NORTHING	EASTING	MLLW	DESCRIPTION
AIL 2 1948 NO 2	1,982,450.19	2,308,961.48	12.68	USC&GS REFERENCE DISK
CORN 2 1948	1,981,343.46	2,310,559.44	9.89	USC&GS REFERENCE DISK
DRINK 2 1948	1,980,194.54	2,310,908.77	14.51	USC&GS TRIANGULATION DISK
WHN-3 2001	1,983,773.86	2,310,359.17	11.97	BRASS DISK
WHN-4 2001	1,980,485.22	2,309,144.02	11.50	BRASS DISK

PROJECT LIMITS			
CORNER#	NORTHING	EASTING	
1	1,980,480.00	2,310,290.00	
2	1,981,358.00	2,310,114.00	
3	1,982,980.00	2,309,635.00	
4	1,983,264.00	2,309,708.00	
5	1,982,802.00	2,309,974.00	

PROJECT LIMITS			
CORNER#	NORTHING	EASTING	
6	1,980,480.00	2,310,444.00	
7	1,980,471.62	2,310,600.57	
8	1,982,855.00	2,310,115.00	
9	1,982,991.37	2,310,039.29	

VOLUME COMPUTATIONS			
AREA A: CHANNEL		MLLW=0	CU. YD.
AVAILABLE TO PROJECT DEPTH (PD)		-24.0	353
AVAILABLE TO MAX PAY DEPTH (MP)		-25.0	745
AVAILABLE SIDE SLOPES (SS) AT 3:1 (H:V) & 25' WIDE		VARIABLES	848
TOTAL MAXIMUM VOLUME AVAILABLE (MP + SS)			1,593

NAVIGATION AIDS			
USCG NO.	NORTHING	EASTING	DESCRIPTION
25095	1,980,538	2,310,300	ROCK LIGHTED BUOY 13
25100	1,981,299	2,310,566	WHITESTONE POINT LIGHT 14
25105	1,982,270	2,309,856	CHANNEL BUOY 15
25110	1,982,821	2,309,733	CHANNEL LIGHTED BUOY 17
25115	1,983,736	2,309,569	WHITESTONE SANDSPIT BUOY 18
25120	1,984,537	2,309,502	CHANNEL RANGE FRONT LIGHT
25125	1,984,904	2,309,415	CHANNEL RANGE REAR LIGHT



THIS HYDROGRAPHIC SURVEY WAS COMPLETED UNDER THE OVERSIGHT OF AN NSPS/THSOA CERTIFIED HYDROGRAPHER

Gregory W. Gibson (317)

US Army Corps of Engineers
ALASKA DISTRICT

CONTRACT NO. W1H192-07-0004
 CONTRACTOR: JBER, ALASKA 99506-9898
 CITY: WASILLA
 STATE: ALASKA
 APPROVED BY: MICHAEL E. MUELLER
 RECOMMENDED BY: THOMAS A. SLOAN
 DATE: 07/26/2018

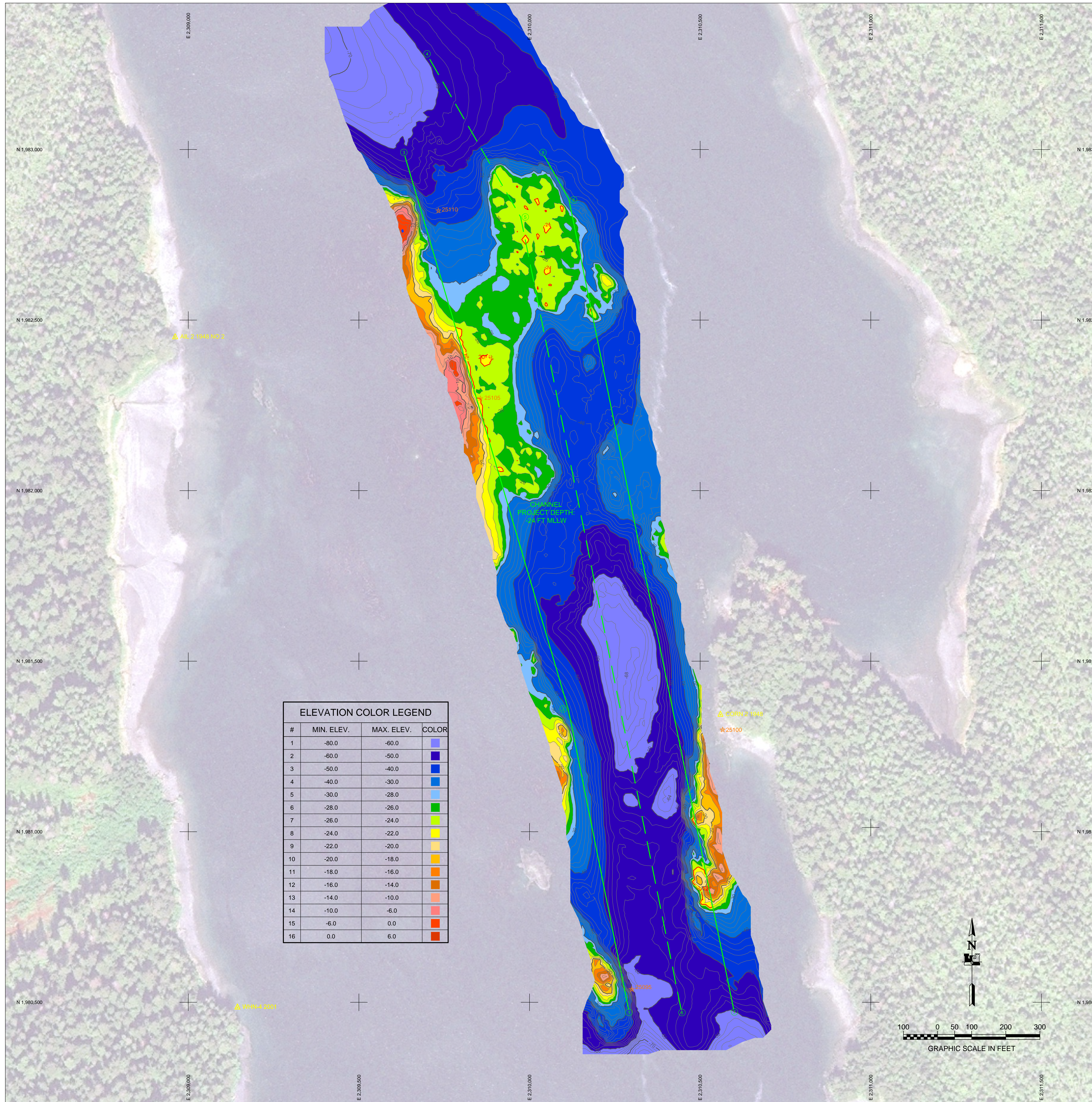
DATE: 07/26/2018
 BY: [Signature]
 TITLE: [Signature]

NO.	REVISION	DATE	DESCRIPTION

U.S. ARMY CORPS OF ENGINEERS
 ALASKA DISTRICT
 JBER, ALASKA 99506-9898
 DRAWN BY: [Signature]
 CHECKED BY: [Signature]
 APPROVED BY: [Signature]
 FILE NAME: [Signature]
 SIZE: [Signature]
 DATE: [Signature]

PERIL AND NEVA STRAITS, ALASKA
 072744 - WHITESTONE NARROWS
 PROJECT CONDITION SURVEY
 APRIL 27 - 29, 2018

SHEET IDENTIFICATION
 1-WHI-92-07-04
 Sheet 1 of 2



#	MIN. ELEV.	MAX. ELEV.	COLOR
1	-80.0	-60.0	Blue
2	-60.0	-50.0	Dark Blue
3	-50.0	-40.0	Blue
4	-40.0	-30.0	Light Blue
5	-30.0	-28.0	Light Blue
6	-28.0	-26.0	Green
7	-26.0	-24.0	Yellow-Green
8	-24.0	-22.0	Yellow
9	-22.0	-20.0	Orange
10	-20.0	-18.0	Light Orange
11	-18.0	-16.0	Orange
12	-16.0	-14.0	Light Orange
13	-14.0	-10.0	Orange
14	-10.0	-6.0	Light Orange
15	-6.0	0.0	Red
16	0.0	6.0	Dark Red



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US Army Corps of Engineers - ALASKA DISTRICT

CONTRACT NO. W11H61440119P004
 CONTRACTOR: ETIMC INC.
 CITY: WASILLA
 STATE: ALASKA
 APPROVED: MICHAEL E. MEYER
 RECOMMENDED: THOMAS A. SLOAN
 DATE: 07/25/2018

NO.	DATE	BY	DESCRIPTION

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072744 - WHITSTONE NARROWS
PROJECT CONDITION SURVEY
APRIL 27 - 29, 2018**

SHEET IDENTIFICATION
1-WHI-92-07-04
Sheet 2 of 2