



NOTES

1. PRIMARY PROJECT HORIZONTAL CONTROL IS ALASKA STATE PLANE, ZONE 1, NAD83, [2011]20102000, IN US SURVEY FEET BASED ON A FULLY CONSTRAINED STATIC GPS NETWORK HOLDING THE PUBLISHED NOAA 2010.0 EPOCH VERTICALS BASED OF NGS CORS STATIONS: "KLAWOQCBAR2006 CORS ARP" (PD DM74451), "ATLIN CORN" (PD D59891), "JUNEAU WAAS 1 CORS ARP" (PD F4087).
2. VERTICAL CONTROL IS MEAN LOWER LOW WATER (MLW=-0.0 FT), BASED ON THE NOAANS TIDAL BENCH MARKS "945 0987 LN", "945 0987 SHAKAN STRAIT (NORTHEAST END)", AK" PUBLISHED 04/26/2011, "945 0987 EL ALBUQUERQUE, NM" PUBLISHED 04/26/2011, "945 0987 EL ALBUQUERQUE, NM" PUBLISHED 07/14/2014, THIS TIDAL DATUM IS BASED ON THE 1983-2011 TIDAL EPOCH AND IS REFERENCED TO A TILTED-PLANE MLW DATUM HOLDING NOAANS TIDAL BENCH MARKS: "945 0987 BM 1" (PD BVCV26/MLW) AS 14.435 FT, "945 0987 LYNN" (VMN20876) AS 10.59 FT, AND "945 0986 TIDAL 3" (VMN20876) AS 13.66 FT.
3. VERTICAL TIES TO THE NATIONAL SPATIAL REFERENCE SYSTEM ARE BASED ON PUBLISHED NAVD83 (GEOID 12N) ELEVATIONS HOLDING NOAANS/TIDAL BENCH MARKS: "945 0987 BM 1" (VMN14026) AS 12.94 FT, "945 0987 LYNN" (PD BVCV14/MLW) AS 9.43 FT, AND "945 0986 TIDAL 3" (PD BVCV26/MLW) AS 12.07 FT.
4. SOUNDINGS ARE IN US SURVEY FEET AND IN CORPUS ANGUS OTHERWISE INDICATED.
5. BATHYMETRY WAS COLLECTED MARCH 31 AND APRIL 1, SOUNDINGS WERE COLLECTED USING AN RSONIC204 MULTIBEAM ECHOSOUNDER OPERATING AT 200KHZ, SOUND VOLUME THROUGH THE WATER COLUMN WAS DETERMINED WITH A 1000' RANGE, 100' BEAM WIDTH, 100' SPACING, AND VESSEL ORIENTATION WERE MEASURED USING AN APPLIXIN GPS/OCEANMASTER V5 SYSTEM RECEIVING RTK CORRECTIONS FROM A TRIMBLE SP5855 GPS RECEIVER SET AT CONTROL STATION VESSEL DATUM. DATA WAS COLLECTED USING A 1000' RANGE, 100' BEAM WIDTH, 100' SPACING. HORIZONTAL CONTROL WAS SURVEYED USING STATIC GNSS EQUIPMENT AND TECHNIQUES. VERTICAL CONTROL WAS SURVEYED USING STATIC GNSS EQUIPMENT AND DIFFERENTIAL LEVELING.
6. MOBILE TERRESTRIAL LASER SCANNING DATA WAS COLLECTED USING A REIGL Z4040 LASER SCANNER POSITIONED AND VESSEL ORIENTATION WERE MEASURED USING AN APPLIXIN GPS/OCEANMASTER V5 SYSTEM RECEIVING RTK CORRECTIONS FROM A TRIMBLE SP5855 GPS RECEIVER SET AT CONTROL STATION TIDAL 3, MOBILE SCANNING WAS COLLECTED AND PROCESSED USING QINSY 8.1 SOFTWARE.
7. THIS DRAWING INDICATES GENERAL CONDITIONS AT THE TIME OF THE SURVEY...
8. 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.

SURVEY CONTROL DATA

STATION	NORTHING	EASTING	MLLW	DESCRIPTION
0987 BM 1	1,575,471.98	2,727,634.50	14.43	3.5" USCS DOMED BC
BETSY 1996	1,580,869.08	2,732,943.94	14.72	DOMED SBC
LYN	1,581,415.92	2,754,466.05	10.59	3.5" USACE DOMED BC
PTC	1,580,391.15	2,741,998.01	12.27	1" PIPE WITH TACK
RICK	1,578,763.46	2,729,012.51	14.34	3" DOMED SBC
TIDAL 3	1,581,007.62	2,737,111.44	13.56	3.5" USCS DOMED BC

PROJECT CENTERLINE

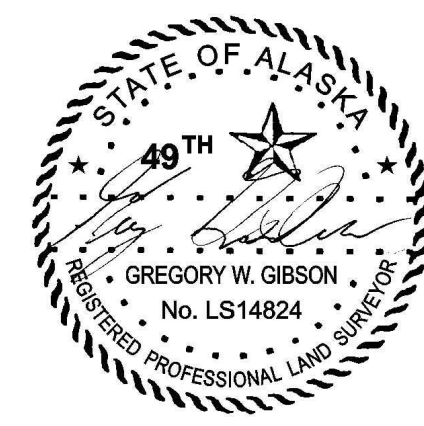
CORNER#	NORTHING	EASTING
1	1,577,302.17	2,727,990.18
2	1,577,760.13	2,728,747.65
3	1,579,124.63	2,729,625.06
4	1,580,499.83	2,732,171.49
5	1,580,712.58	2,732,965.17
6	1,581,798.91	2,734,585.78

PROJECT CENTERLINE


CORNER#	NORTHING	EASTING
7	1,582,013.12	2,735,743.96
8	1,580,909.56	2,739,084.66
9	1,580,502.23	2,740,770.21
10	1,579,579.97	2,742,779.60
11	1,579,407.64	2,744,265.08

VOLUME COMPUTATIONS

AREA A: CHANNEL	MLLW=0	CU. YD.
AVAILABLE TO PROJECT DEPTH (PD)	-12.0	2,371
AVAILABLE TO MAX PAY DEPTH (MP)	-13.0	4,949
AVAILABLE SIDE SLOPES (SS) AT 3:1 (H:V) & 25' WIDE	VARIES	10,592
TOTAL MAXIMUM VOLUME AVAILABLE (MP + SS)		15,541



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



David R. Neff C.H. (275)



US Army Corps
of Engineers
ALASKA DISTRICT

CONTRACT NO. W911KB-14-D-0013-00039	
CONTRACTOR ETAC INC.	
CITY NASILLA	STATE ALASKA
Recommended: Approved:	Date:
MICHAEL E. MUELLER	THOMAS A. SLOAN
PRIME CONTRACTOR	CHIEF GEOMATICS SECTION

[illegible]

	U.S. ARMY CORPS OF ENGINEERS ALASKA DISTRICT JBER, ALASKA 99506-0088		DATE: 12 June 2017	
	P.O. BOX 6888 JBER, ALASKA 99506-0088		DESIGNED BY: ALEXANDER DEVIG	
APPROVED BY: Thomas A. Bean, Chief domestic section		CONTRACT NO: W11-14-2-0013039		NO.:
SIZE: A0/8E		DATE: 05/12/2017		NO.:
ASSET:		FILE NAME:		NO.:
		1272931-shel_fm.png		

DRY PASS, ALASKA
 DRY PASS CHANNEL
 PROJECT CONDITION SURVEY
 MARCH 29 - APRIL 01, 2017

SHEET
 IDENTIFICATION
 1-DRP-92-07-02
 Sheet 3 of 24