

**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 2011 EPOCH 2010.00 VALUES OF NGS CORS STATIONS: "LEVEL ISLAND 5 CORS ARP" (PID DJ3033), "BIORKA ISLAND 6 CORS ARP" (PID DK6554), "PORTALEXANDERAK2005 CORS ARP" (PID DL6695).
- LOCAL PROJECT HORIZONTAL CONTROL IS ALASKA STATE PLANE, ZONE 1, NAD83 2011 (2010.00), IN US SURVEY FEET HOLDING "1600 P 1998" AS N 1,908,750.35 E 2,352,961.21, AND "WC-3 2001" AS N 1,912,051.12 E 2,350,575.56.
- VERTICAL CONTROL IS MEAN LOWER LOW WATER (MLLW=0.0), BASED ON THE NOAA/NOS TIDAL BENCH MARK LIST "9451600 SITKA, BARANOF ISLAND, SITKA SOUND ALASKA", PUBLISHED 10/06/2011. THIS TIDAL DATUM IS BASED ON THE 1983-2001 TIDAL EPOCH AND IS REFERENCED BY HOLDING NOAA/NOS TIDAL BENCH MARK "945 1600 L 1982" (VMH1186) AS 40.32.
- VERTICAL TIES TO THE NATIONAL SPATIAL REFERENCE SYSTEM ARE BASED ON PUBLISHED NAVD83 (GEOID 12B) ELEVATIONS HOLDING NOAA/USACE TIDAL BENCHMARK "1600 P 1998" (PID BBFF16/VMH14007) AS 22.37.
- SOUNDINGS ARE IN US SURVEY FEET AND ARE MINUS UNLESS OTHERWISE INDICATED.
- BATHYMETRY WAS COLLECTED MARCH 25 - 26, 2016. SOUNDINGS WERE COLLECTED USING AN R2SONIC 2022 MULTIBEAM ECHOSOUNDER OPERATING AT 200 KHZ. SOUND VELOCITY THROUGH THE WATER COLUMN WAS DETERMINED WITH AN AML BASE X SOUND VELOCITY PROBE. POSITIONING AND VESSEL ORIENTATION WERE MEASURED USING AN APPLIANCE POS OCEANMASTER VS SYSTEM. DATA WAS COLLECTED AND PROCESSED USING GINSY 6.1 SOFTWARE. HORIZONTAL CONTROL WAS SURVEYED USING RTK GNSS EQUIPMENT AND TECHNIQUES. VERTICAL CONTROL WAS SURVEYED USING DIFFERENTIAL LEVELING 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.

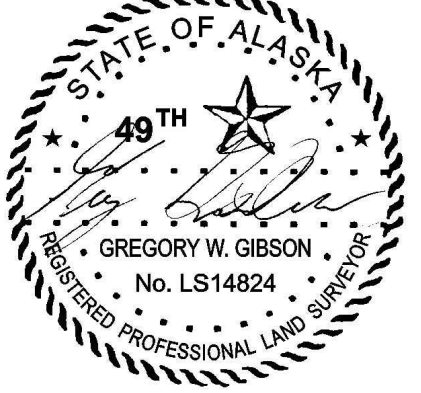
SURVEY CONTROL DATA				
STATION	NORTHING	EASTING	MLLW	DESCRIPTION
1600 P 1998	1,908,750.35	2,352,961.21	22.83	3.5" DOMED NOS BC
CH-9 2016	1,909,495.16	2,354,480.57	19.62	3.5" DOMED USACE BC
LB-2 1978	1,908,780.34	2,354,476.60	14.61	3.5" DOMED NOS BC
WC-3 2001	1,912,051.12	2,350,575.56	16.76	3.25" DOMED SBC
WC-4-2001	1,910,740.83	2,350,128.42	9.37	3.25" DOMED SBC

NAVIGATION AIDS			
USCG NO.	NORTHING	EASTING	DESCRIPTION
25030	1,910,583	2,350,925	SITKA HARBOR CHANNEL LIGHT 9
25035	1,910,465	2,351,204	HARBOR ROCK DAYBEACON
25040	1,910,270	2,351,236	SITKA HARBOR LIGHT 11
25043	1,909,262	2,351,607	SITKA HARBOR GOVERNMENT PIER NORTH LIGHT
25045	1,909,052	2,351,807	SITKA HARBOR GOVERNMENT PIER SOUTH LIGHT

PROJECT LIMITS		
CORNER#	NORTHING	EASTING
1	1,911,072.93	2,350,754.82
2	1,910,943.90	2,350,678.32
3	1,910,828.01	2,351,167.87
4	1,910,708.91	2,351,074.63

PROJECT LIMITS		
CORNER#	NORTHING	EASTING
5	1,910,572.24	2,351,419.57
6	1,910,491.12	2,351,289.02
7	1,910,087.31	2,351,589.05
8	1,910,037.82	2,351,447.45

VOLUME COMPUTATIONS		
AREA A: CHANNEL	MLLW=0	CU. YD.
AVAILABLE TO PROJECT DEPTH (PD)	-22.0	6
AVAILABLE TO MAX PAY DEPTH (MP)	-23.0	149
AVAILABLE SIDE SLOPES (SS) AT 3:1 (H:V) & 25 FT WIDE	VARIES	1
TOTAL MAXIMUM VOLUME AVAILABLE (MP + SS)		150



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. W111014-14-0013  
CONTRACTOR: ETAC INC.  
CITY: WASILLA  
PROJECT: WESTERN CHANNEL SURVEY  
DATE: 03/18/2016

APPROVED BY: [Signature]  
DATE: 03/18/2016

DATE: 03/18/2016  
DESIGNED BY: [Signature]  
CHECKED BY: [Signature]  
APPROVED BY: [Signature]  
SCALE: 1" = 50'  
FILE NO.: 1418  
JOB NO.: 1418  
JOB NO.: 1418  
JOB NO.: 1418

U.S. ARMY CORPS OF ENGINEERS  
ALASKA DISTRICT  
JBER, ALASKA 99506-0608  
eTAC, Inc.  
617 S. Kink-Grover Bay Rd., Suite C  
Wasilla, AK 99587

SITKA, ALASKA  
WESTERN CHANNEL  
PROJECT CONDITION SURVEY  
03/18-29/2016

SHEET IDENTIFICATION  
1-SIT-92-07-15  
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