APPENDIX C

2007 and 2014 Lind Marine Oyster Shell Lease Area 5534.1
Bathymetry Surveys

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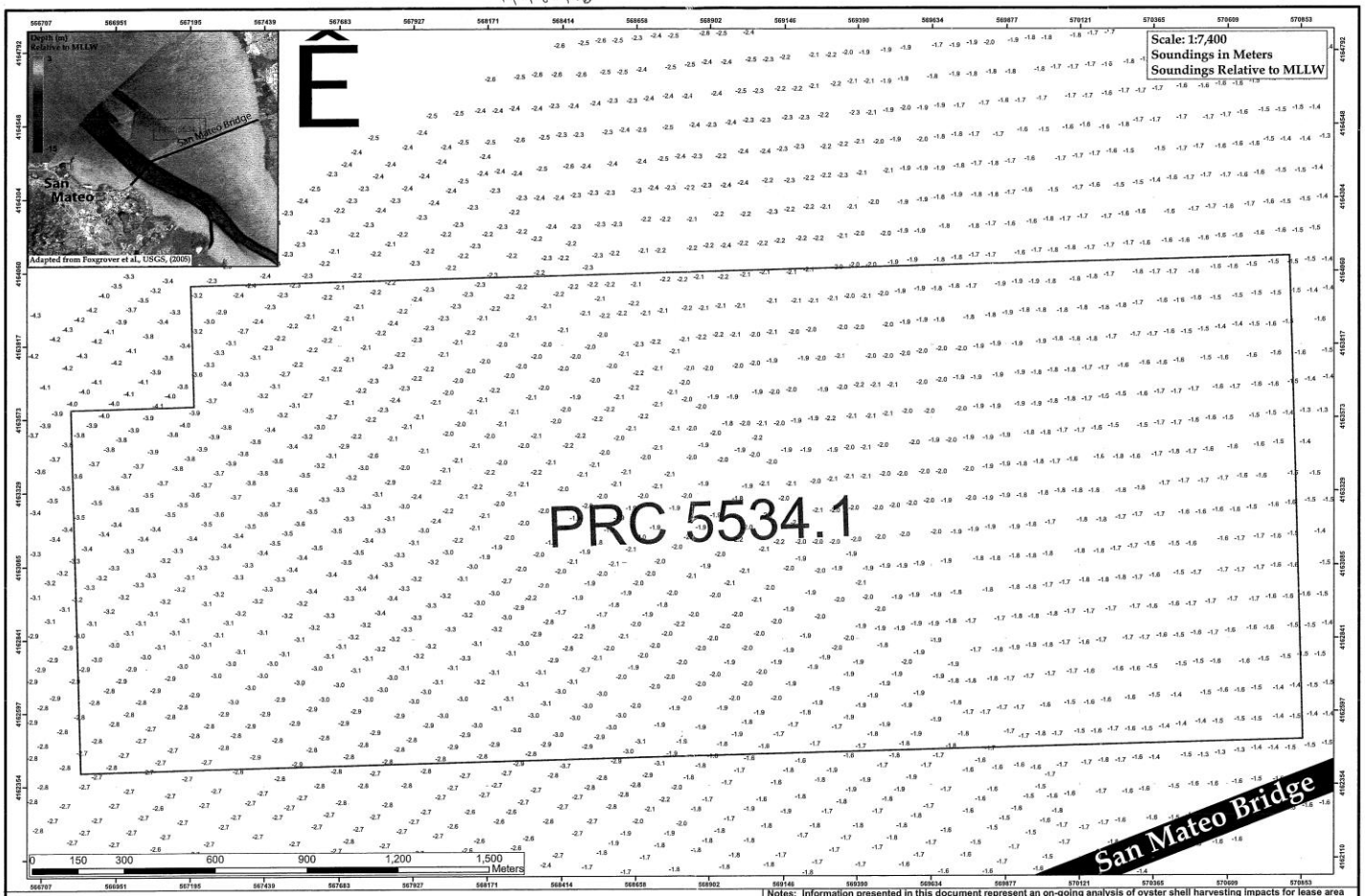
M78-K6



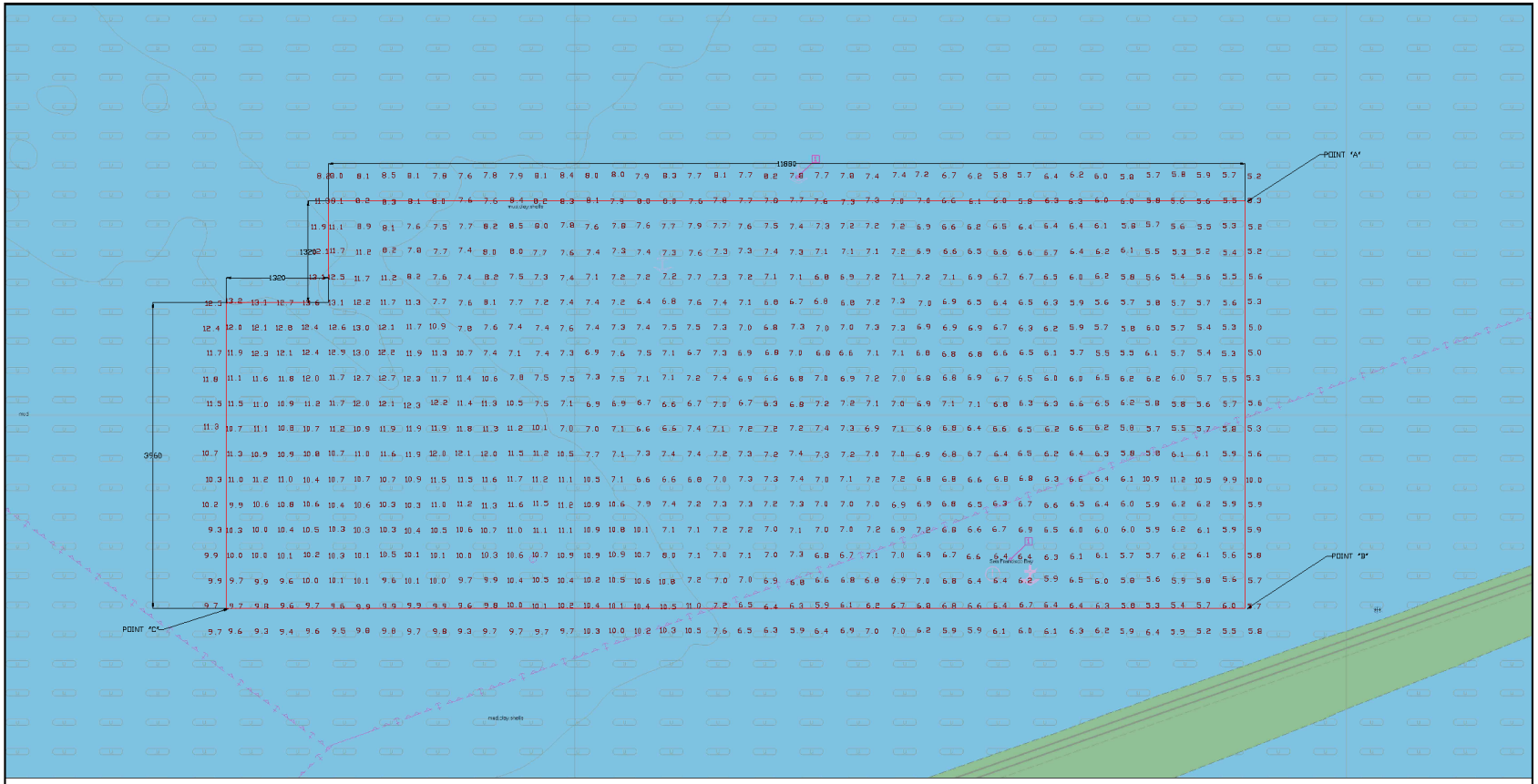
eTrac Engineering, LLC
www.etracengineering.com

Oyster Shell Harvesting Lease Area and Baseline Bathymetric Survey

California State Lands and BCDC

Notes: Information presented in this document represent an on-going analysis of oyster shell harvesting impacts for lease area 5534.1. California State Lands and Bay Conservation and Development Commission (BCDC). Geographic information regarding the lease site provided by Jerico Products, Inc. report dated 4/26/99. XYZ ASCII format data generated from the 2005 single beam acoustic bathymetric survey of South San Francisco Bay, CA made available via USGS Open-File Report. Z-values provided relative to Mean Lower Low Water (MLLW) of the 1983-2001 national tidal datum epoch where possible. Funding provided by the California Coastal Conservancy and survey collected by Sea Surveyor, Inc. of Benicia, CA. Additional information and metadata for this survey are available online at:
http://pubs.usgs.gov/of/2007/1169/
http://pubs.usgs.gov/of/2007/1169/data/OF1169_metadata/SSFB05_MLLW.html
This document compiled by eTrac Engineering, LLC on 07/16/07.

2007 Lind Marine Oystershell Lease area 5534.1 Bathymetry Survey



NOTES:

1.SOUNDINGS AND ELEVATIONS SHOWN REPRESENT EXISTING CONDITIONS AT THE TIME SURVEYED
2.CORDINATES FORM USACOE PERMIT # 12615-49A
3. SOUNDINGS SHOWN REPRESENT ELEVATIONS BELOW MLLW

	X	Y
Point "A"	1508686.69	412779.4
Point "B"	1508686.69	407500.3
Point "C"	1494488.79	407500.3

HORIZONTAL DATUM OF THE POINTS LISTED IS NAD 27 CA STATE PLANE III AS SUPPLIED BY THE CALIFORNIA DEPARTMENT OF STATE LANDS DATED 4/26/1999

OPERATOR / CONDITIONS	
SURVEY DATE:	4/30 &5/1
ENGINEER / SURVEYOR:	K. TWEED
SURVEY VESSEL:	BEAVER
VESSEL OPERATOR:	A. NELSON
WEATHER:	SUNNY
TEMPERATURE:	85
WIND:	0-5 SW
SEA:	0

ELECTRONIC EQUIPMENT	
FATHOMETER:	ODOM HYDRO-TRAC
FREQUENCY(s):	200 KHZ - 24 KHZ
HEAVE COMP.:	CODA F-185+
SOS (AVG):	1509.5 M/S
POSITIONING:	RTK
USCG BEACON:	LEICA VRN
TIDE GAUGE:	NA
	RTK ELEVATIONS

PROJECT DETAILS	
HORIZONTAL DATUM:	NAD - 27
LOCAL GRID:	FLORIDA EAST (2300)
VERTICAL DATUM:	MLLW
UNITS HORIZ. / VERT.:	FT/FT
SURVEY/PROJ. CONTROL POINT:	X= LEICA VRN
	Y= LEICA VRN
	Z= LEICA VRN
SURVEY/PROJ. BENCH MARK:	X= LEICA VRN
	Y= LEICA VRN
	Z= LEICA VRN
TIDE STAFF LOCATION:	NOAA RAS ALAMEDA

Bay Marine Services
Precision Hydrographic Surveys

PROJECT JERICO PRODUCTS OYSTER MINING LEASE
2014 CONDITIONAL SURVEY

TITLE/SURVEY TITLE LEASE AREA DEPTHS

SURVEY DATE: JANUARY 30, 2003	DATUM: NAD	SCALE: 1:100	
FILENAME: FILE NAME	TIDE: N/A		
DRAWN BY: K. TWEED	DRAWN BY: BILL BUTLER	PAGE 1 OF 2	

2014 Lind Marine Oystershell Lease area 5534.1 Bathymetry Survey