KIDDER POINT

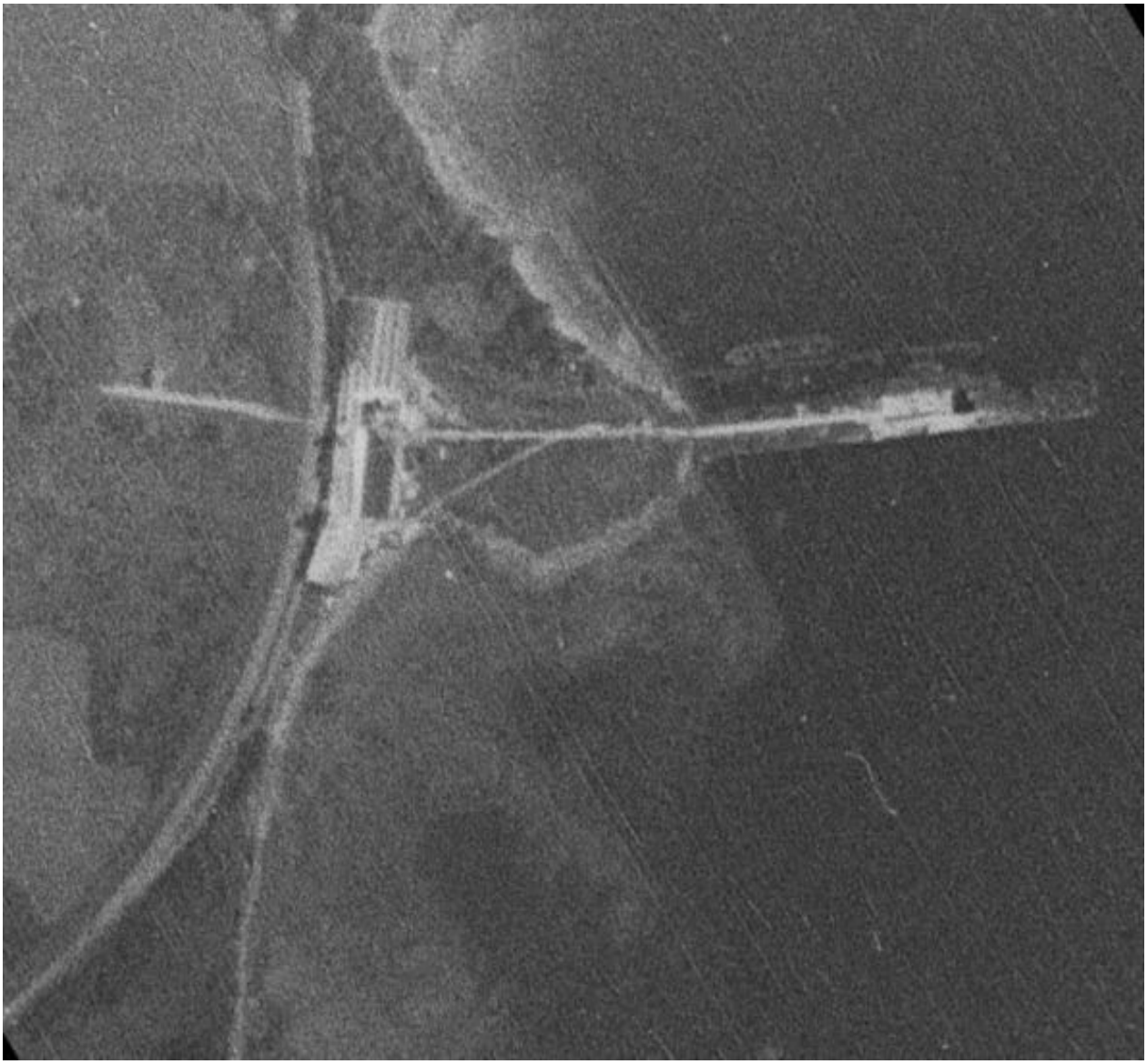
LEGACY INDUSTRIAL WASTE DUMPS

COASTAL ACIDIFICATION VECTOR

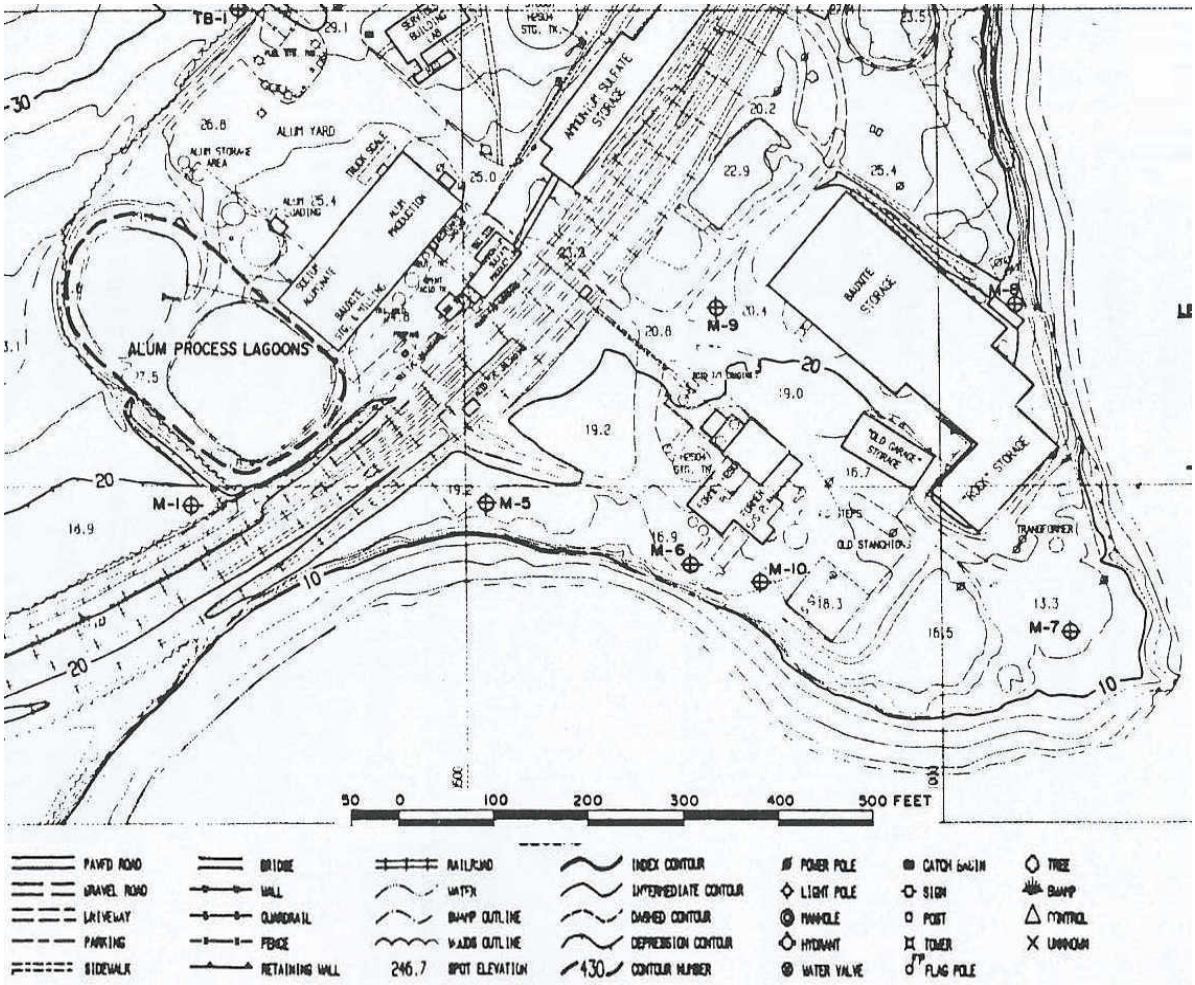
WITH HUMAN HEALTH RISKS

Kidder Point, Maine industrial waste sites from 1905-1970 superphosphate & alum production. 5/1/13. Lighthawk photo.

FIRST: KIDDER POINT 1940



KIDDER POINT 2004


TB-1
ALUM YARD
ALUM PROCESS LAGOONS
ALUM PRODUCTION
BAUXITE STORAGE
OLD GARAGE STORAGE
INDEX STORAGE
OLD STANCHIONS
TRANSFORMER
M-1
M-5
M-6
M-7
M-9
M-10
50 0 100 200 300 400 500 FEET
PAVED ROAD
GRAVEL ROAD
DRIVEWAY
PARKING
SIDEWALK
BRIDGE
WALL
GUARDRAIL
FENCE
RETAINING WALL
RAILROAD
WATER
SWAMP OUTLINE
WOODS OUTLINE
246.7 SPOT ELEVATION
INDEX CONTOUR
INTERMEDIATE CONTOUR
DASHED CONTOUR
DEPRESSION CONTOUR
430 CONTOUR NUMBER
POWER POLE
LIGHT POLE
MANHOLE
HYDRANT
WATER VALVE
CATCH BASIN
SIGN
POST
TOWER
FLAG POLE
TREE
SWAMP
CONTROL
UNKNOWN

Delta Chemical 1984
Kidder Pt, Searsport ME
Sulfuric acid spill plume

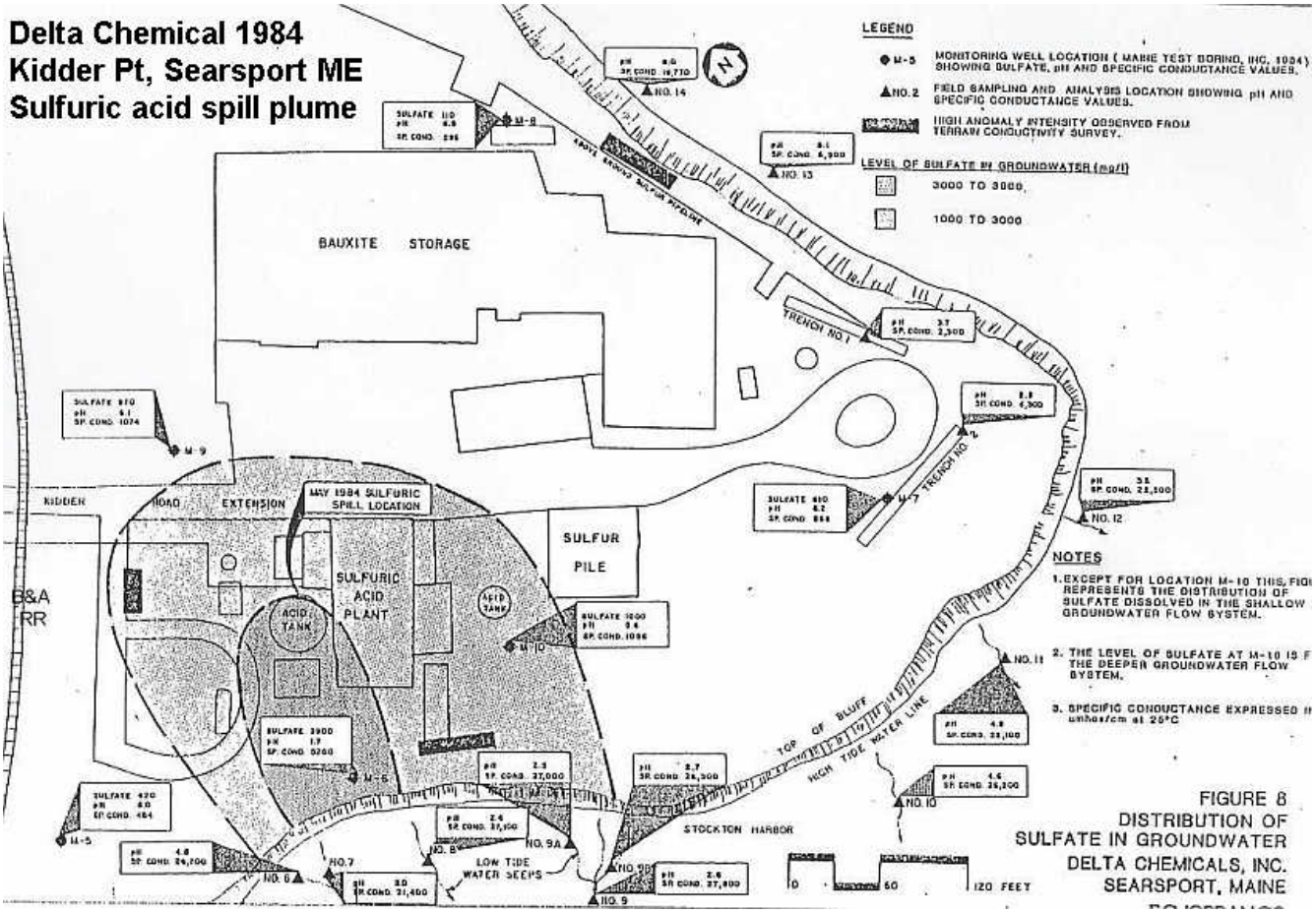
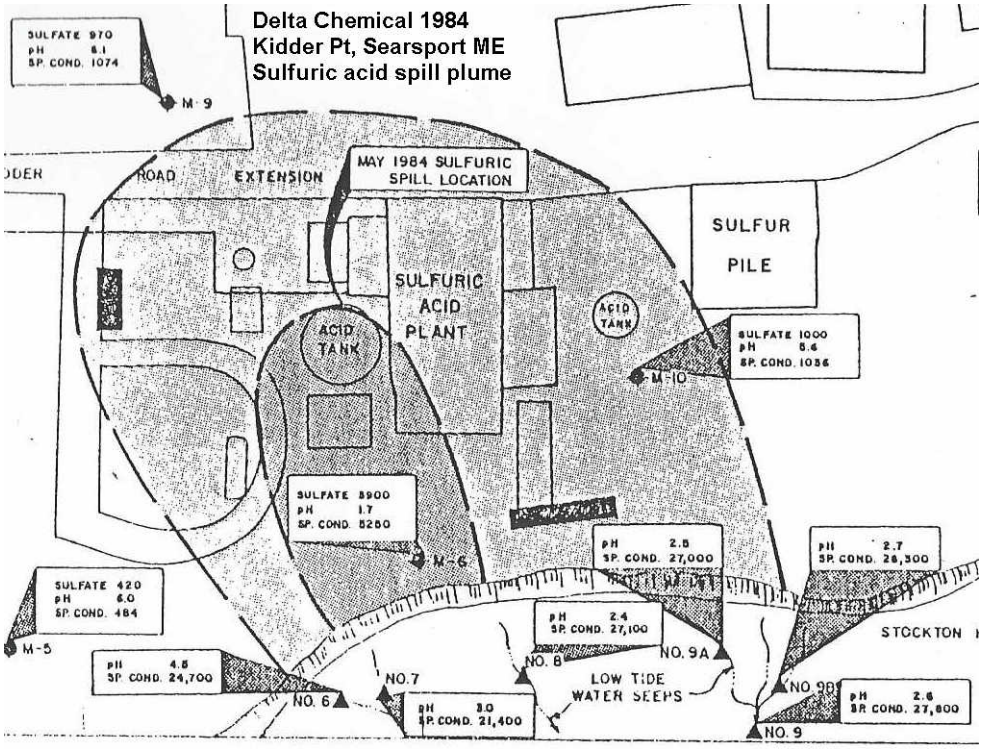


FIGURE 8
DISTRIBUTION OF SULFATE IN GROUNDWATER
DELTA CHEMICALS, INC.
SEARSPORT, MAINE


Delta Chemical 1984
Kidder Pt, Searsport ME
Sulfuric acid spill plume
SULFATE 970
pH 8.1
SP. COND. 1074
M-9
ODER
ROAD
EXTENSION
MAY 1984 SULFURIC
SPILL LOCATION
SULFUR
PILE
SULFURIC
ACID
PLANT
ACID
TANK
ACID
TANK
SULFATE 1000
pH 8.6
SP. COND. 1036
M-10
SULFATE 8900
pH 1.7
SP. COND. 5250
M-6
pH 2.5
SP. COND. 27,000
pH 2.7
SP. COND. 26,300
SULFATE 420
pH 6.0
SP. COND. 484
M-5
pH 2.4
SP. COND. 27,100
STOCKTON
pH 4.8
SP. COND. 24,700
NO. 6
NO. 7
NO. 8
NO. 9A
LOW TIDE
WATER SEEPS
NO. 9B
pH 3.0
SP. COND. 21,400
pH 2.6
SP. COND. 27,800
NO. 9

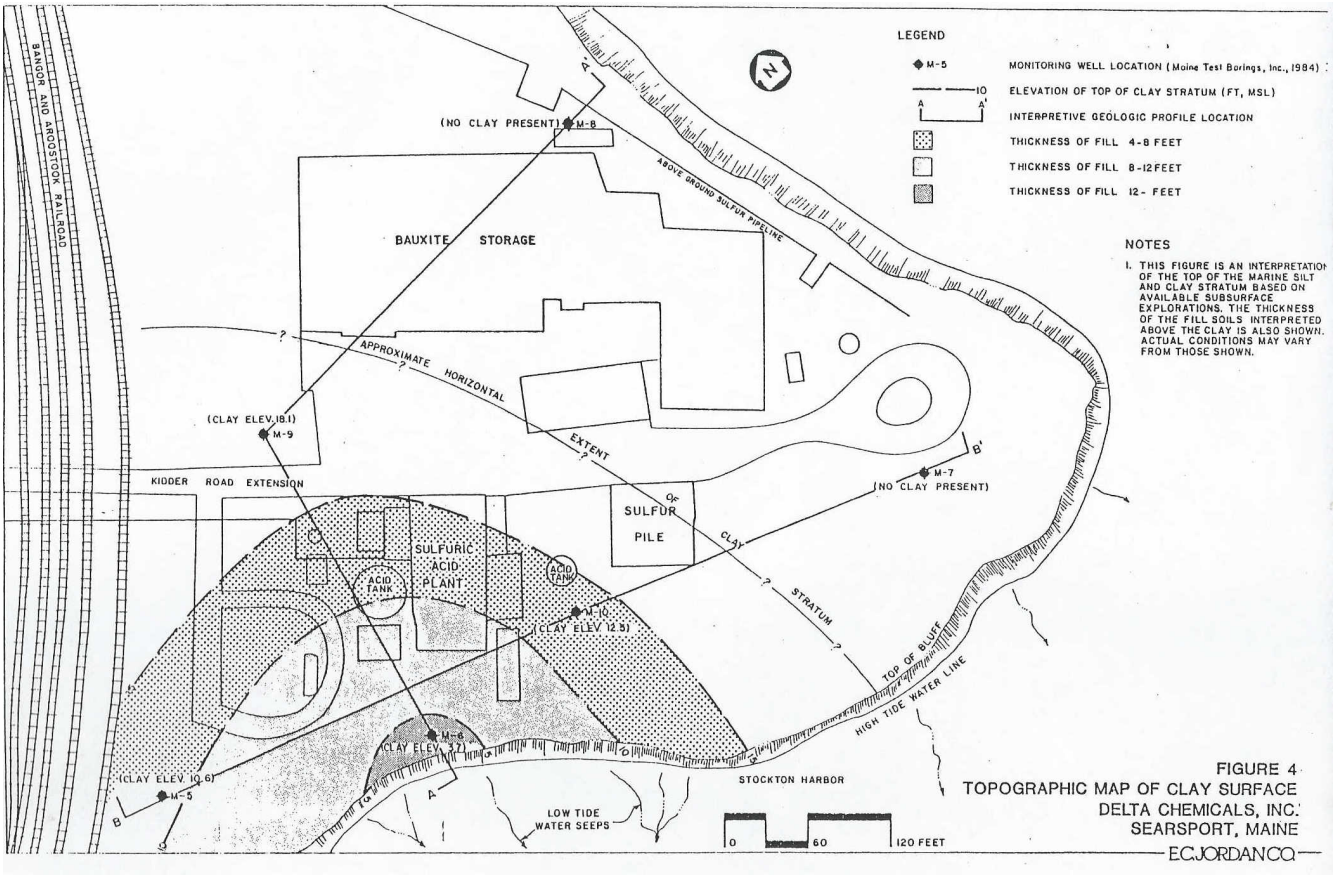
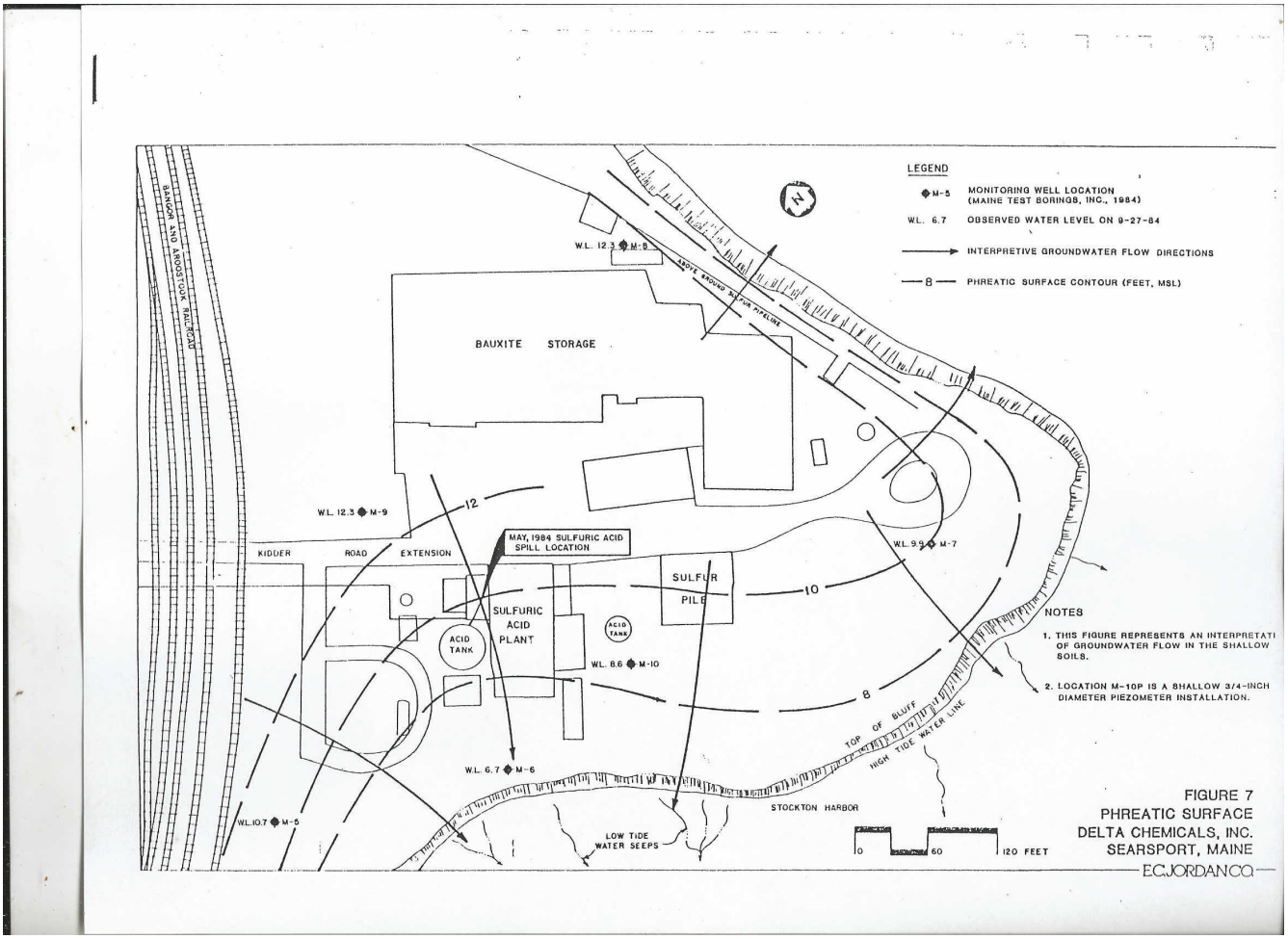
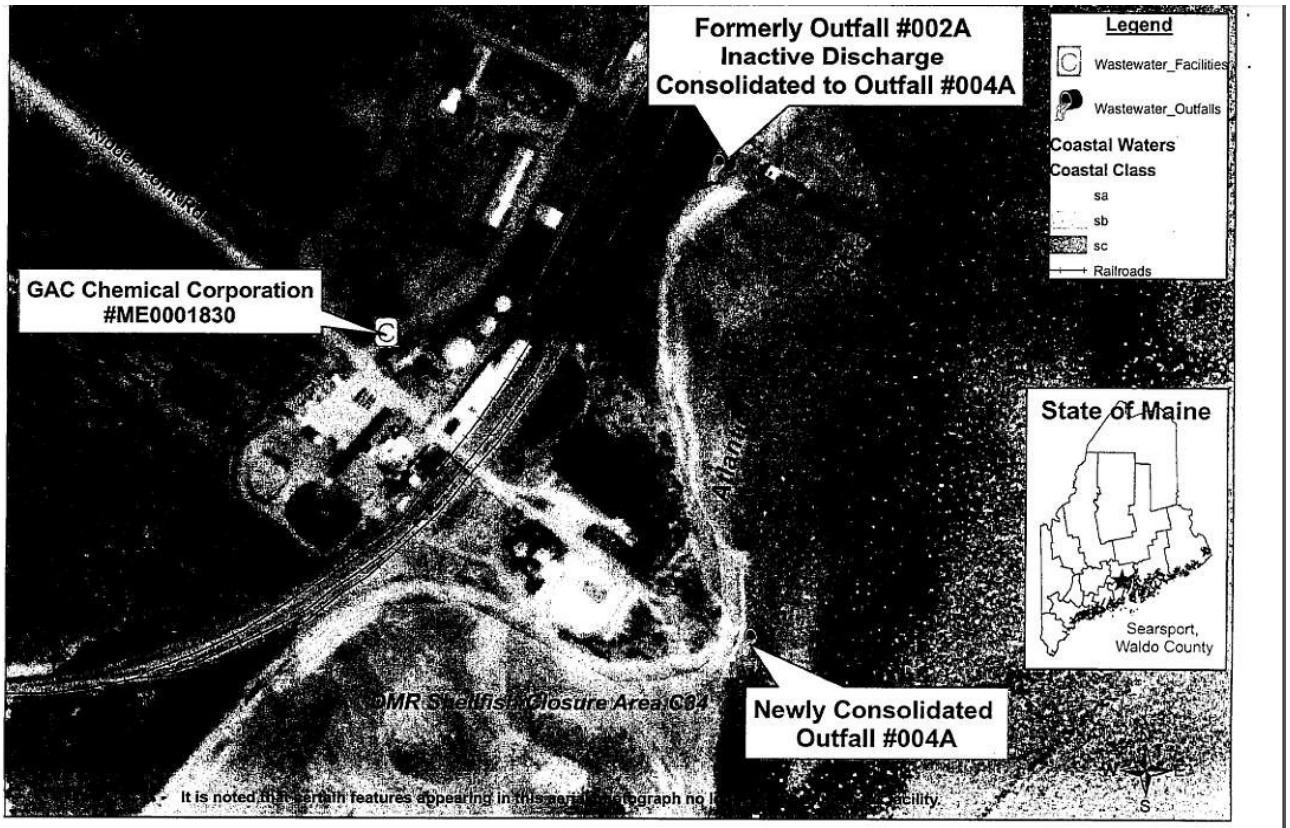


FIGURE 4
TOPOGRAPHIC MAP OF CLAY SURFACE
DELTA CHEMICALS, INC.
SEARSPORT, MAINE
E.C.JORDAN CO.

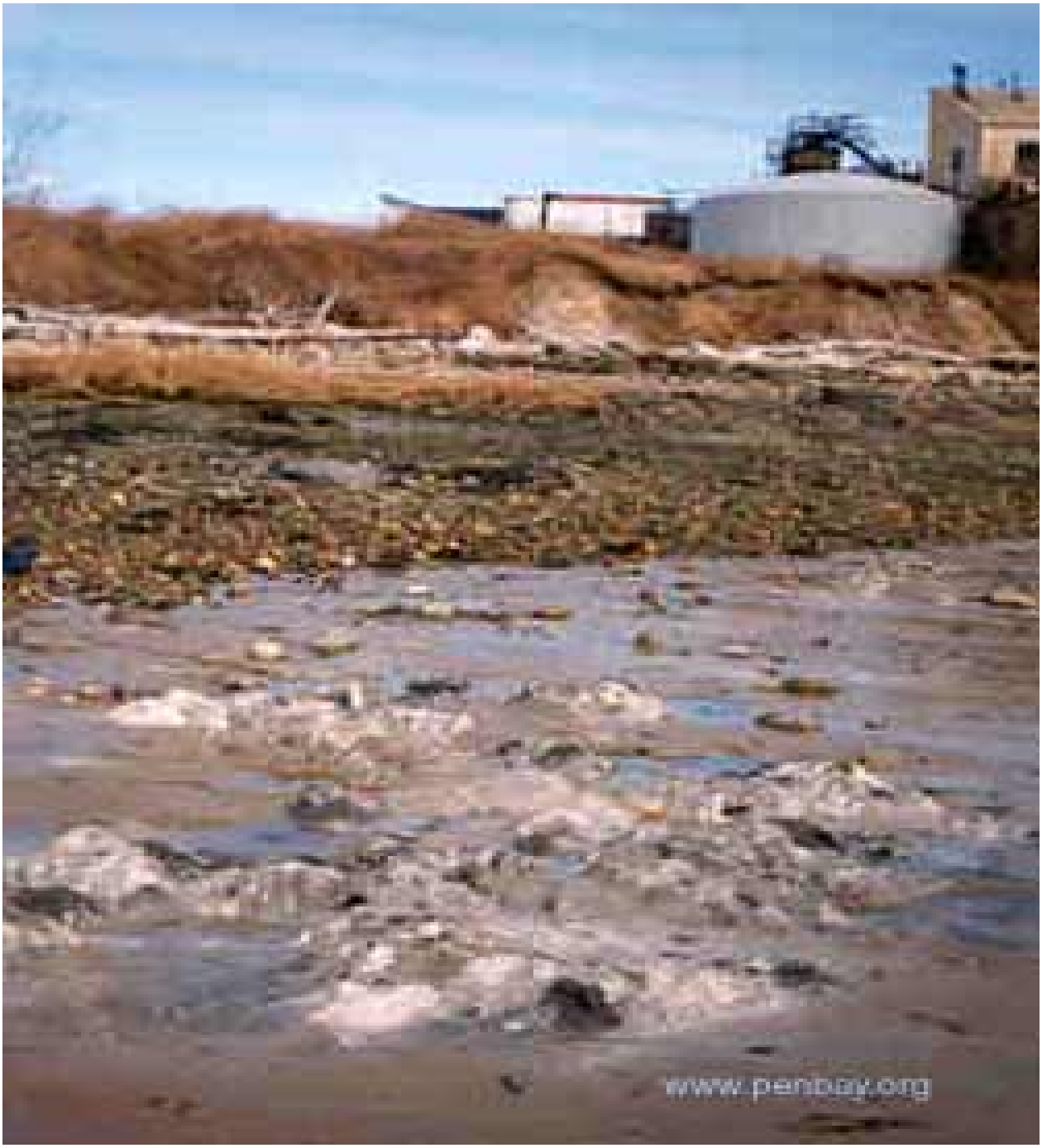


RUNOFF AND LEACHEATE MOVEMENT

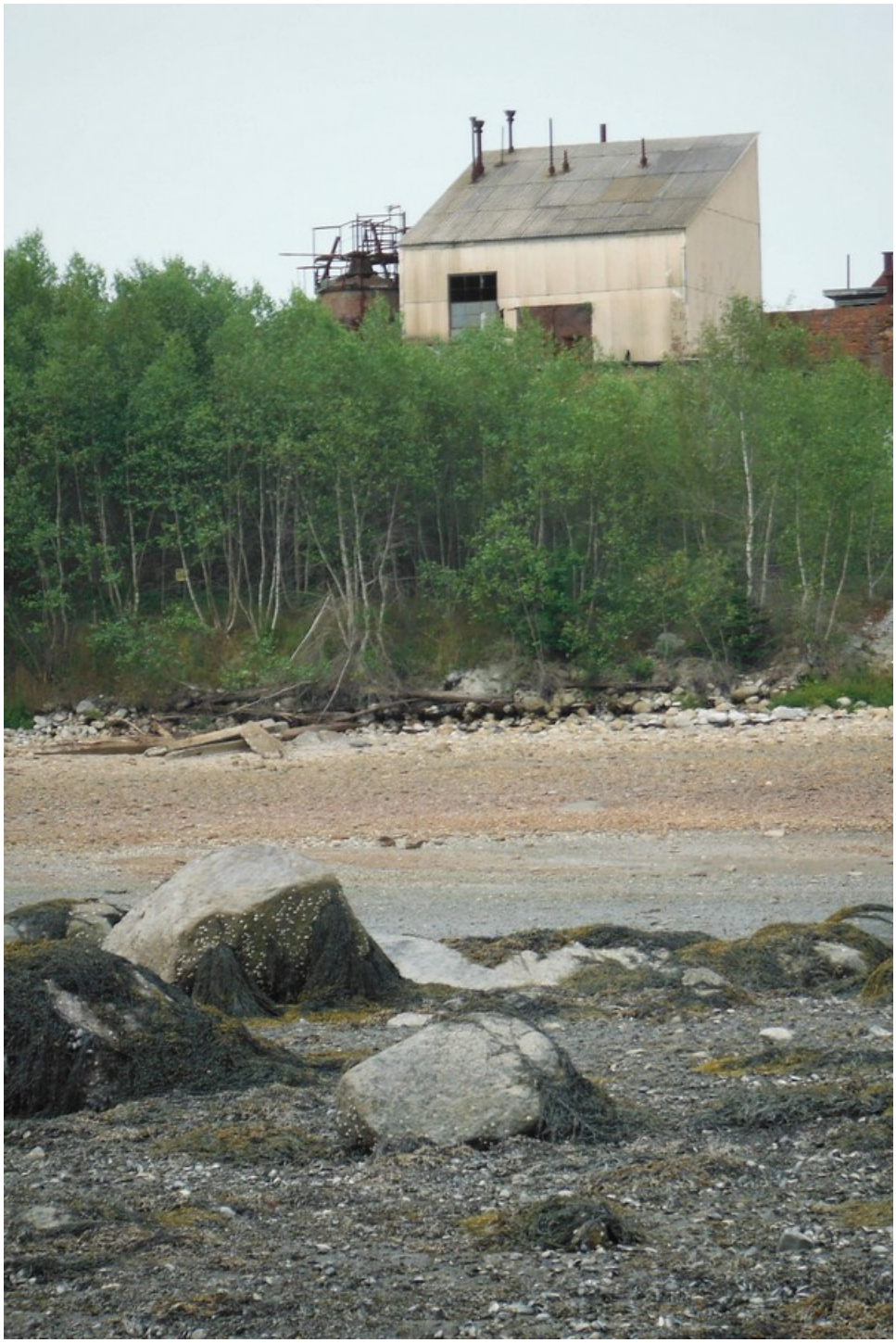

Formerly Outfall #002A
Inactive Discharge
Consolidated to Outfall #004A
Legend
Wastewater_Facilities
Wastewater_Outfalls
Coastal Waters
Coastal Class
sa
sb
sc
Railroads
GAC Chemical Corporation
#ME0001830
State of Maine
Searsport,
Waldo County
Atlantic
DMR Shellfish Closure Area C84
Newly Consolidated
Outfall #004A
It is noted that certain features appearing in this aerial photograph no l
acility.
W
E
S
0
0.05
0.1
0.2
Miles
Searsport, Maine
Map created Maine DEP
December 8, 2005 - Revised March 14, 2006

SHORELINE TOUR OF THE KIDDER POINT SHORE

Sediment sampling runs, Stockton Harbor, 1/30/14 for pH testing by Dr Mark Green, St Joseph's College, Standish, ME, for Friends of Penobscot Bay.
Photo courtesy Project Lighthawk



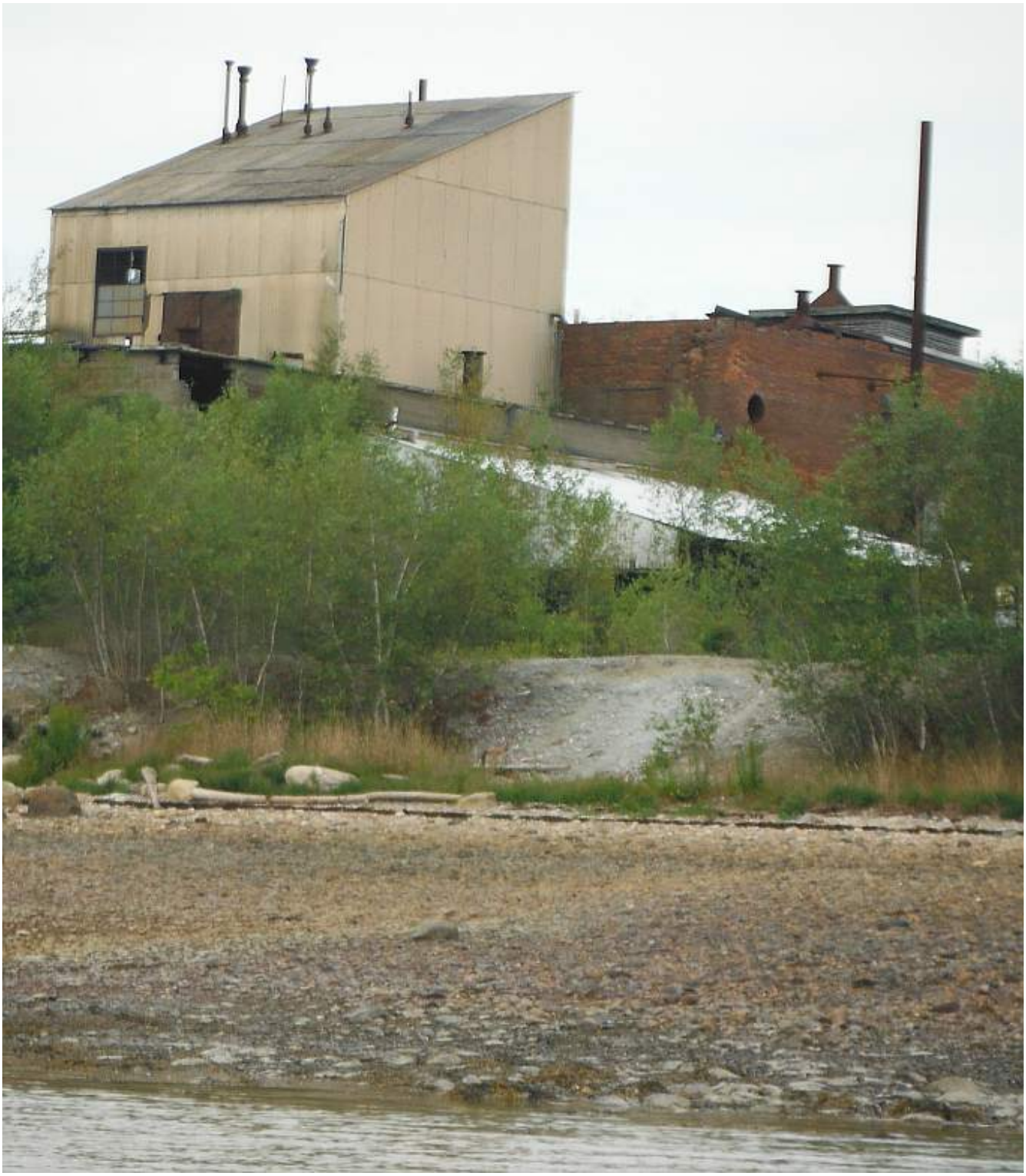
A new “Shining Shore”



Abandoned
acid factory

Wooden waste corrals

Ceramic waste



Acid factory
eroding wastes

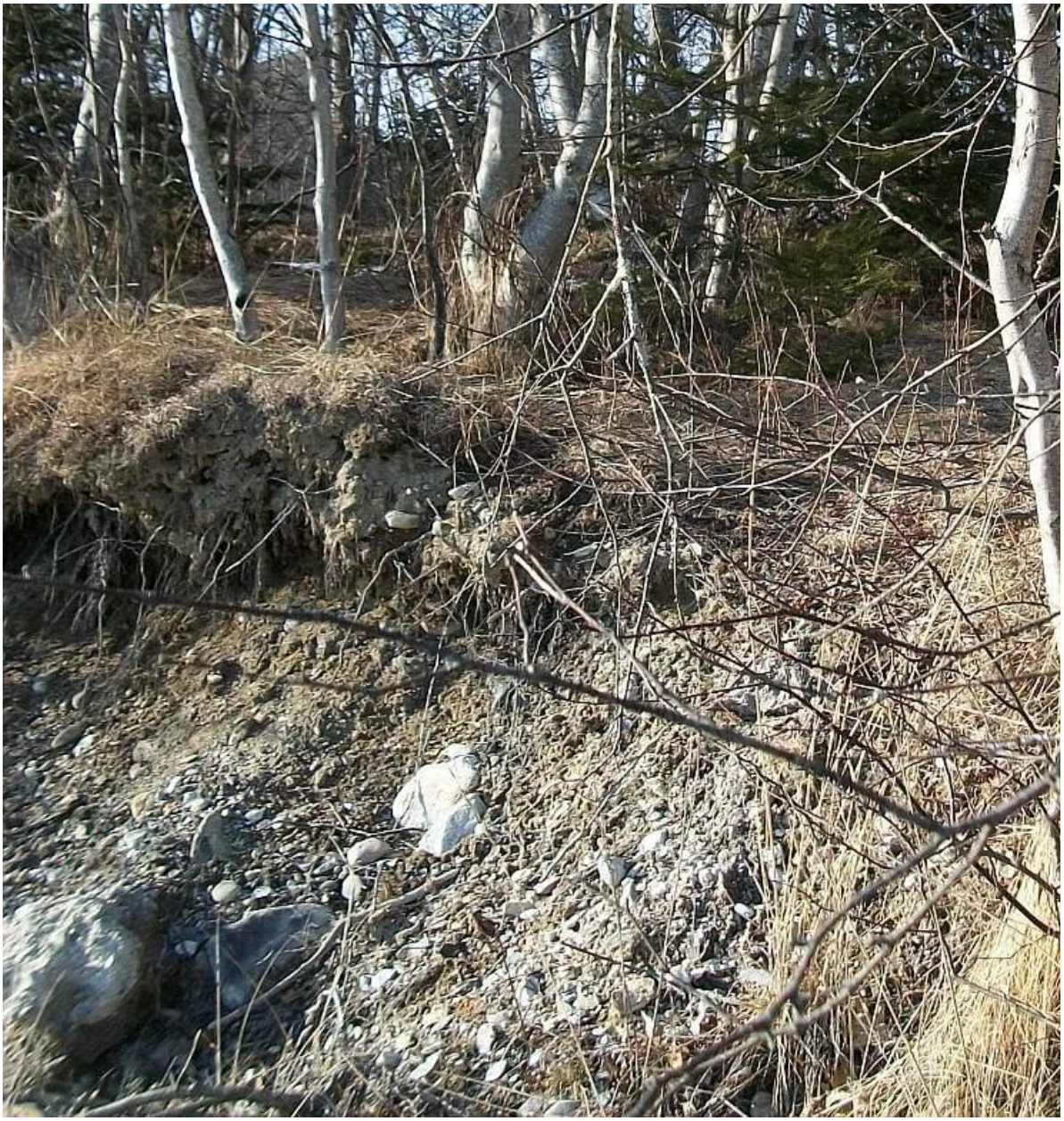
Tainted Intertidal

Bauxite mud, wrote Delta Chemical Mgr Alec Horth Natural, said DEP.

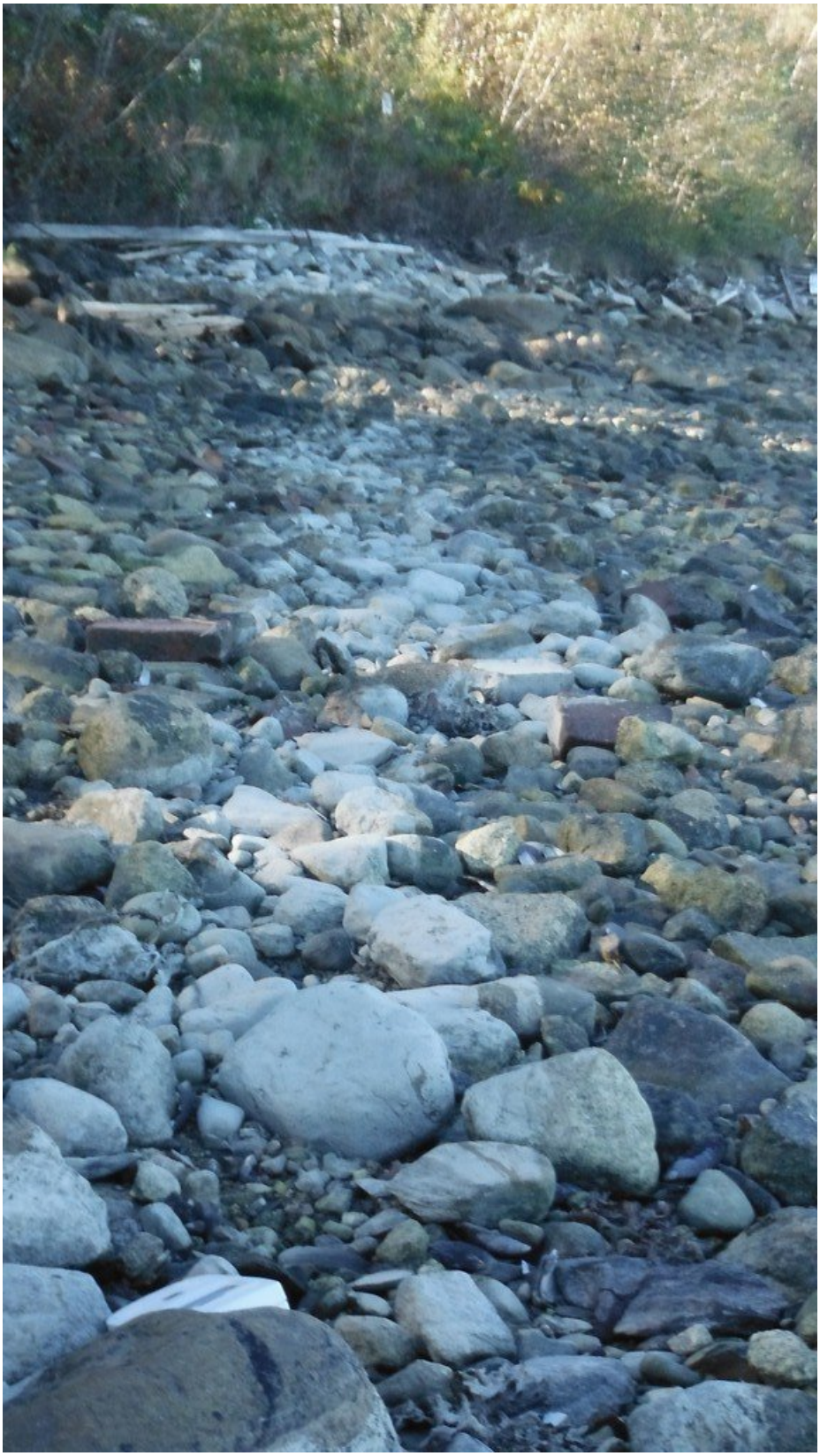
“Thriving” ecosystem

says DEP

TARPAPER IN INTERTIDAL FROM NOW GONE FERTILIZER PLANT




Searsport, Maine. GAC Chemical facility. Active area is above MMA Railroad tracks.
Tip of Kidder Point in Stockton Harbor has abandoned factory (A) with tank, and cleared site of former bulk storage quonset hut. (B)
C = Beach contaminated with chemical wastes from abandoned factory and eroding bauxite tailings dumped on shore
D to E Shoreline expanded out onto beach on wooden-cribbed waste dumps
A
B
C
D
E
Closed outfall
Abandoned outfall, pumphouse.
100 feet
25 m
© 2013 Microsoft Corporation Available Exclusively by DigitalGlobe



MOST WASTE DEPOSITED ON THIS SHORE

HISTORY

From New England newspapers and government reports of the time.

* 1905 Boston Maine Steamship Co wharf being built on Kidder Pt
* 1907 Power plant on Kidder Point for Mack Point
* 1914 BAR RR closes Kidder Point power plant for Mack Point
* 1925 BAR abandons Cape Jellison pier; expands Mack Point pier
* 1928 Fire destroys giant Armor fertilizer plant in Searsport
* 1928 "Death Knell" sounded for Stockton Harbor
* 1943 Fire at Summers Fertilizer 5/1/43
* 1944 Price ceiling set on wartime Searsport fertilizer production
* 1976 Delta Chemical gasses Searsport, causes Fernview shipwreck
* 1971 Summers Fertilizer leader's portrait presented to U Maine
* 1972 Delta Chemical imports propane
* 1974 Power cable plan between Kidder Pt & Sears Isld 12/23/74
* 1989 Delta ChemicalAmmonia Gas release
* 1984 Sulfuric Acid Spill
* 1994 General Alum & Chemical buys the site

GAC,
DEP
&
ME

Coastal Waters Project
60-A Grace Street
Rockland ME 04841

February 26, 1998

Clarissa Trasko
Maine Department of Environmental
Protection Bangor ME

Dear Clarissa
I am writing to bring an apparent water pollution risk to your attention.

General Alum Plant has what appears to be a stormwater drain/catchment on the shorefront of its facility, several meters south of a disused pumphouse structure extending out from the shore.The catchment appears to be made of concrete, with two basins. The front basin has a wood front. Behind the wood barrier is what looks like an oil sump, complete with a small section of oil boom. There is a large pipe entering into the catchment from the back.

Upon inspection, the oil sump area appears to be filled dangerously near to the top with an oily substance smelling strongly of petroleum. While the design of the catchment is such that additional wooden boards could be inserted to increase the sump's capacity, it makes much more sense to have the oily waste removed and properly disposed of.

Unless this is done, there is a risk that a surge of water coming down the water pipe which empties into this catchment could overwhelm the oil/water separation system and cause a discharge of the substance into Stockton Harbor. A vandal could likewise cause a release of this oily waste into Stockton Harbor by removing or breaking one or more of the boards separating the oily waste from the intertidal area.

(cont'd page 3)

Would you please examine this situation and take appropriate action to protect Penobscot Bay from the potential for a spill from this catchment? Please let me know at your earliest convenience what measures you have taken.

Sincerely,

Ron Huber, Director
Coastal Waters Project

cc John Sowles MDEP
USCG Marine Safety Office

SOILED FLATS

THE CLEANUP

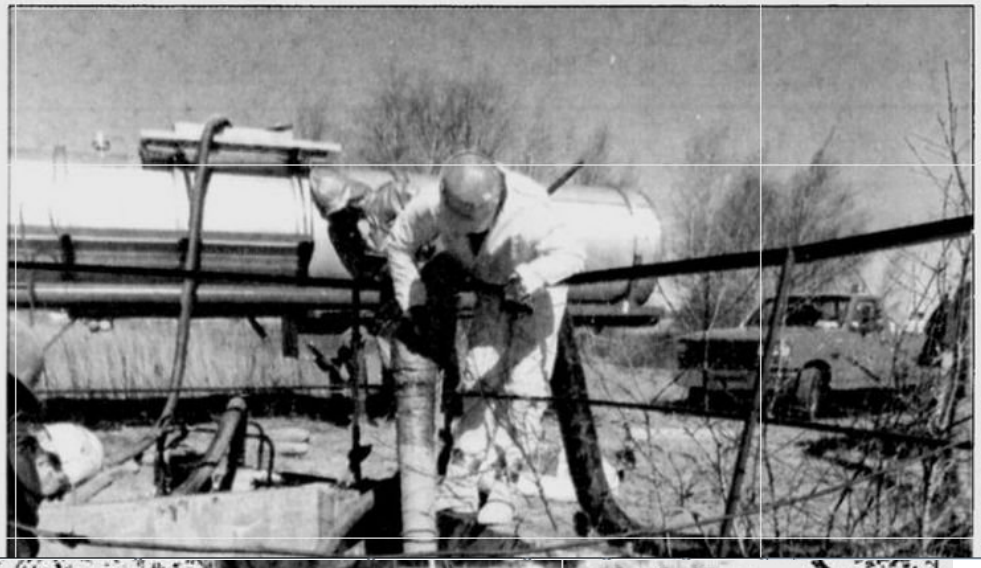
An osprey nest sits near mud flats and General Alum in Searsport.

Oily muck vacuumed in Searsport

By Wyatt Olson
Of the NEWS Staff

SEARSPORT — Dwarfed by a contraption resembling a mammoth vacuum cleaner, workers from Clean Harbors Environmental Services Inc. sucked up an estimated 20 cubic yards of fuel-laden muck near Stockton Harbor on Tuesday.

The private firm was hired by General Alum and Chemical Corp., which owns the concrete catch basin containing the gunk. The operation was overseen by the U.S. Coast Guard, wnich required the cleanup.

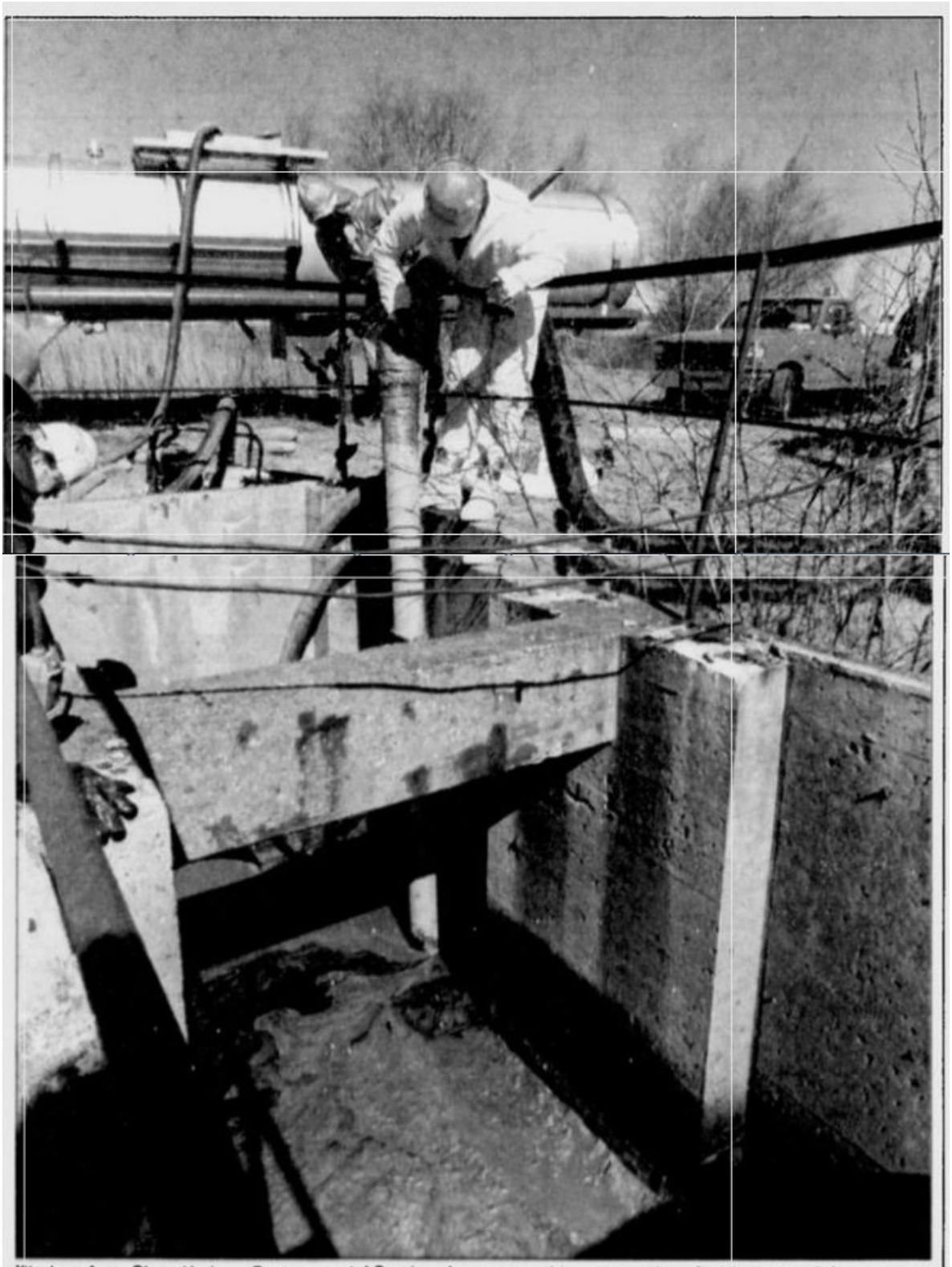


Coast Guard and Department of Environmental Protection officials look over a weir at General Alum in Searsport. (NEWS Photo by Bob DeLong)

Crew vacuums oily waste

Substance at Searsport site may be from 1989 spill

Workers from Clean Harbors Environmental Services Inc. use machinery to suck up fuel-laden muck from a weir at General Alum and Chemical Corp. in Searsport, which owns the concrete catch basin containing the gunk. The operation was overseen by the U.S. Coast Guard, which required the cleanup. (NEWS Photos by Bob DeLong)



Workers from Clean Harbors Environmental Services Inc. use machinery to suck up fuel-laden muck from a weir at General Alum and Chemical Corp. in Searsport, which owns the concrete catch basin containing the gunk. The operation was overseen by the U.S. Coast Guard, which required the cleanup. (NEWS Photos by Bob DeLong)

General Alum cleans up discharge

DEP and Searsport firm agree on actions

BY MURRAY CARPENTER

SEARSPORT — The Department of Environmental Protection has requested several changes at the General Alum facility, which would improve the quality of water discharged to Stockton Harbor.

After meeting June 16 with Alexander Horth, General Alum's vice president of Engineering and Environmental Affairs, DEP's Philip Garwood outlined the problems and corrective actions in a June 23 letter.

Garwood requested the company sample the water flowing into a catch basin at "Outfall 001," one of the company's two points of discharge to the harbor, and conduct dye tests to determine inputs to the outfall. The discharge from this outfall has been too acidic. The discharge water is supposed to stay close to a neutral pH (a measure of acidity vs. alkalinity with low numbers acidic and high numbers alkaline), in the range of 6 to 8.5, but has consistently dipped below 6. Horth said recent dye tests confirm his suspicion that the acidic discharge is due to residue from a 1994 acid spill.

The outfall pipe has also been discharging ammonia. Horth explained that the only possible source of the ammonia is an ammonium sulfate production building inactive since 1993. He agreed to clean up any dried crusts and recrystalized material remaining on the side of a storage tank in the building, and raise the building's floor to keep stormwater out of contact with any remaining material.

Outfall 002, which discharges boiler water, has a different problem: The discharge has pH that is too high, or alkaline. Horth said water-softening chemicals in the system are responsible, and agreed to install a neutralization system by the end of August.

This does not seem like a prompt response to Garwood, who wrote, "We expressed our dissatisfaction that this was not scheduled sooner, based on the length of time you have known the cause and solution."

Garwood's letter also states that General Alum should keep sorbent booms in place at the mouth of outfall 2. An oily sludge was cleaned up from a catch basin at the outfall in April, but more of the oily substance remains in the pipe leading to the basin.

Horth said the company has kept the booms in place for years and emphasized that all of the actions requested by DEP are projects the chemical company has been working on for some time.

Activist Ron Huber of the Coastal Waters Project is disappointed in the actions DEP is requiring, and says they rely too much on good will and do not go far enough.

Regarding the booms to absorb oil, Huber says DEP is telling General Alum, "Rather than clean it, we just want you to put a diaper on it."

Huber said another lingering problem is that the exact routes of the many pipes beneath the facility are still unknown.

"We're glad that they have come to an agreement that there is a problem," Huber said. "But in matters of pollution control, you don't want to give people the benefit of the doubt, you just want to go to the heart of it and take care of the problem. There is nothing to be gained by soft-pedaling this. The goal is to have a bay that is not being impacted." ■

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MAINE

CONSERVATION LAW FOUNDATION, Plaintiff, v. GENERAL ALUM NEW ENGLAND CORPORATION, Defendant.	)	CIVIL ACTION NO.

COMPLAINT

Plaintiff, the Conservation Law Foundation (CLF), through its undersigned attorney, alleges as follows:

INTRODUCTION

1. This is a civil action brought against the General Alum New England Corporation pursuant to section 505(a)(1) of the Federal Clean Water Act (CWA or Act), 33 U.S.C. § 1365(a)(1).

2. General Alum New England Corporation (GAC) owns and operates a chemical

The Proposed Penalty is Inadequate to Deter Future Wastewater Violations

Sulfuric Acid Spill

It should also be noted that Paragraph 13 states that the water enforcement action does not include the violations for discharging some 765 gallons of 93 percent pure sulfuric acid through Outfall 001. Upon information and belief, CLF understands that this spill was considered a "major" penalty under the Department's hazardous material penalty policy, however, it was scored in about the middle of the range of possible penalties, and then GAC was given a $5,000 reduction for promptly reporting the spill. The total penalty was $10,000 out of a possible range of $10,000 to $25,000.

Official records and reports from the time of the spill do not indicate that GAC was in any way prepared to deal with the spill despite handling sulfuric acid and other hazardous materials on a daily basis (Attachment 3). Reports also indicate that, in fact, "tens of thousands of gallons of sulfuric acid solution [were] discharged with a pH of between 0 and 1 and later under a pH of 2."

pollutants into Stockton Harbor, a water of the United States, from one point source without a National Pollutant Discharge Elimination System (NPDES) permit, discharges pollutants from a second point source in violation of an existing NPDES permit, discharges storm water in

9. GAC is a person within the meaning of section 502(5) of the CWA, 33 U.S.C. § 1362(5).

Count 1: NPDES Permit Effluent Limit, Sampling, Monitoring and Reporting Violations

10. The CLF realleges and incorporates by reference the allegations of paragraphs 1 through 9 above as though fully set forth herein.

11. Section 301(a) of the CWA, 33 U.S.C. § 1311(a), prohibits the discharge of pollutants into navigable waters of the United States except in compliance with the terms and conditions of an NPDES permit issued pursuant to section 402 of the CWA, 33 U.S.C. § 1342. Section 402 of the Act, 33 U.S.C. § 1342, provides that the Administrator of EPA may issue permits under the NPDES program for the discharge of any pollutant into the navigable waters of the U.S. upon such specific terms and conditions as the Administrator may prescribe.

Conservation Law Foundation

March 22, 2002

Jeff Pidot, Esq
Deputy Attorney General
6 State House Station
Augusta, ME 04333

Phil Garwood
Bureau of Land and Water Quality
Terry Hanson
Board of Environmental Protection
Maine Department of Environmental Protection
17 State House Station
Augusta, ME 04333

Re: General Alum New England Corporation: Proposed Consent Agreement and Enforcement Order

BACK TO THE FUTURE