

RECLAMATION OF GOOSE POND MAY25th

1. IF THE POND AREA IS TO IMPOUNDED AND TURNED TO FRESH WATER, WILL PROVISIONS BE MADE FOR RESTORING IN THE FUTURE FOR THE RETURN OF SALT WATER TIDAL FLOW AT SUCH TIME AS THE TOXIC METAL IONS SITUATION WOULD PERMIT ?
2. WILL GOOSE FALLS BE RECONSTRUCTED UP TO THE ORIGINAL FALLS LEVEL, PROVIDING A FALLS IF AND WHEN THE SALT WATER IS PERMITTED TO RETURN TO THE PONDS ?
3. WILL THE DITCH NOW DRAINING TOWARDS WEIR COVE BE FILLED OR PERMANENTLY BLOCKED AT A POINT AND LEVEL THAT WILL RESTORE THE FULL NATURAL RUN-OFF FROM THE AREA INTO GOOSE POND ?
4. WILL A SLUICeway BE PROVIDED THROUGH THE BARRIER OF WASTE ROCK NOW BETWEEN THE UPPER AND LOWER PONDS FOR RUN-OFF OF EXCESS FRESH WATER OR RISE AND FALL OF SALT WATER IN THE FUTURE ?
5. WILL ROCK AND FILL NOW IN THE POND BEDS BE PUSHED BACK INTO THE PIT TO SOME REASONABLE LEVEL BELOW THE NORMAL LOW TIDE LEVEL IN ALL AREAS OF THE POND ?
6. WILL THE POND BEDS BE FILLED TO HIGH TIDE LEVEL WHETHER FRESH OR SALT WATER IS INTRODUCED ?
7. WILL THERE BE AN AGREED ON BENCHMARK TO MONITOR WATER AS WELL AS WASTE LEVELS IN THE POND BEDS ?
8. IF THE PONDS WILL CONTAIN FRESH WATER WILL THE DIVERSION OF THE NATURAL WATERSHED RUN-OFF WEST OF DYER'S HILL BE REMOVED AT THE ROAD DRAIN WHICH WASHED OUT TWICE IN 1969 ?
9. WILL THE POND AREAS WHEN FILLED BE MONITORED TO DETERMINE WHEN THE TOXIC METAL ION SITUATION HAS REACHED AN EQUILIBRIUM ? BY WHO ?
10. WHAT AGENCY WILL PROVIDE ENGINEERING FACTORS IN REGARD TO RECLAMATION AND WILL HAVE FINAL AUTHORITY TO CHECK ON AGREED RECLAMATION PROCEDURES ?

A.E.S. 5/18/71

RECLAMATION OF GOOSE POND

MAY 25TH

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10. WHAT FORM AND FREQUENCY OF MONITORING OF THE PONDS SHOULD BE CARRIED OUT ?

A.E.S. 5/18/71

CHELATING AGENTS: FOR PRECIPITATION OF TOXIC METAL IONS
MORE EFFECTIVE IN AN IMPOUNDMENT
THAN A FLOW THROUGH SYSTEM.. G.B. 5/26/71

NATURAL CHELATING EFFECTS - EXIST?
ARTIFICIAL CHELATING AGENTS - ?? "ZEOLITES"

UNDER NORMAL CONDITIONS ZN & CU SALTS (SULFIDES)
IN BREAKING DOWN OF IONS CREATE A LETHAL SITUATION

CHELATING ANALYSIS (ION EXCHANGE)

UNESCO HYDROLOGICAL DECADE - 1965-75

RUHR VALLEY in GERMANY (RUHRVERBAND)

RUHRVERBAND COMMITTEE - ESSEN GER.

Premis/

COMPANIES USE ALL THE WATER NEEDED
BUT, RETURN IT CLEANED TO THE RUHR
RIVER - OR PAY TO HAVE IT DONE.

HEXADECANOL - TO CUT EVAPORATION RATES
(LIPSTICK BASE)

PRESENTED AT
MEETING JUNE 9/71

RECLAMATION OF GOOSE POND MAY 25th

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2. WILL GOOSE FALLS BE RECONSTRUCTED UP TO THE ORIGINAL FALLS LEVEL, PROVIDING A FALLS IF AND WHEN THE SALT WATER IS PERMITTED TO RETURN TO THE PONDS? **YES IF PRACTICAL (DOYLE)**
3. WILL THE DITCH NOW DRAINING TOWARDS WEIR COVE BE FILLED OR PERMANENTLY BLOCKED AT A POINT AND LEVEL THAT WILL RESTORE THE FULL NATURAL RUN-OFF FROM THE AREA INTO GOOSE POND? **YES.**
4. WILL A SLUICeway BE PROVIDED THROUGH THE BARRIER OF WASTE ROCK NOW BETWEEN THE UPPER AND LOWER PONDS FOR RUN-OFF OF EXCESS FRESH WATER OR RISE AND FALL OF SALT WATER IN THE FUTURE?
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9. WILL THE POND AREAS WHEN FILLED BE MONITORED TO DETERMINE WHEN THE TOXIC METAL ION SITUATION HAS REACHED AN EQUILIBRIUM? BY WHO? **DR. PATRIC**
10. WHAT AGENCY WILL PROVIDE ENGINEERING FACTORS IN REGARD TO RECLAMATION AND WILL HAVE FINAL AUTHORITY TO CHECK ON AGREED RECLAMATION PROCEDURES?

DOYLE
QUESTIONS
THESE
PROPOSALS.

A.E.S. 5/18/71

re: WILDLIFE MANAGEMENT REPORT FOR CALLAHAN

A report on wildlife management for the Goose Pond area, Harborside, Maine was prepared by Mr. William D. Barron of Prentiss & Carlisle Company on Dec. 23, 1965 Received by, Mr. J.W. Peppard, Regional Game Biologist and sent on to Mr. Kenneth W. Hodgdon.

Copy of report sent to Mr. Keith Havey of Maine Department of Inland Fisheries and Game, Water St. Machias, Me. UNDER Fisheries Research & Management Division.

Misc.

Aerial Survey Map 6-14-46 ME*A*1-87
Robinson Aerial Survey Inc
43 Sparta Ave Newton, N.J.

Lat 44° 22' Lon 68° 48'

12 June 1971

Mr. John Gray
Selectman
Brooksville,
Maine. 04617

John:

Enclosed is a copy of the release sent to the newspapers serving the area, the release had a covering letter to each editor requesting publication and telling of notice of future meetings.

For your information the release was drawn on the 10th when I returned to New Jersey edited by an attorney to avoid antagonizing any of the new or prospective members of the newly formed committee. The format was advised by a local newspaper editor here in New Jersey.

Unfortunately Mr. Durnbaugh's editorial was at the least rather premature (I think) in the respect that the committee was and still is in a formative stage, I only hope this will not cause the committee members or any prospective members from doing their best to see the Goose Pond area restored.

Mr. Beck called from Portland and read me the text of the editorial and I called Durnbaugh trying to explain the formative nature of the committee. It was a waste of time and money on my part I'm sorry to say.

Sincerely,

Albert Sandecki

P.S.

We will be returning to Harborside on the 24th.

*COPY SENT TO SHERM GREENE + FRED BECK
JUNE 11/71.*

50 Tanner Street
Haddonfield,
New Jersey 08033
June 11, 1971

Cooperative Extension Service
Box 360 P.O. Building
Ellsworth, Maine 04645

Mr. Carl Rogers
Extension Agent

Dear Mr. Rogers:

Enclosed is accopy of the releasse sent out to the newspapers that service the Hancock County area, this was being drawn up in the interest of informing the newspapers on an equal basis to advise of the newly formed committee. If you have read the June 10th issue of the WEEKLY PACKET you can see that some did not like the agreed on approach. Each of these releases was sent with a covering letter stating that all papers would be told of future meetings and could send a representative if they so desired. So much for the flack we received.

Considering what we were discussing in past letters there seems to be a lot of squeeking on Mr. Doyles and Callahans part over funding available for this job of reclamation. Doyle mentioned the royalties received by the state amount to 15,000 dollars and Callahan is not anxious to spend much either.

John Gray said he would be contacting the S.W. Hancock County Economic Commission to check on the possible source of funds from that source.

In my capacity as "powerless Chairman" I do not think it would be out of line for me to ask you or anyone you would select to attend the next meeting to be held by the committee in an advisory capacity. It is quite apparent we will need all the help we can get in the reclamation of Maine's first base metals open-pit mine.

I have written to John Bjorkbom (USDA) in Orono for assistance in forestation of the tailing and waste areas and he will be in touch with Fred Beck for details on the character of these areas.

Would you let me know at your earliest convenience if you would give us a hand ? I will be here in Haddonfield until the 22nd and then return to Harborside by the 24th.

Sincerely,

Albert E. Sandeck

50 Tanner Street
Haddonfield,
New Jersey 08033
June 11, 1971

Northeastern Forest Experimentation Station
USDA Building, University of Maine
Orono, Maine 04473

Mr. John C. Bjorkbom
Acting Project Leader

Dear Mr. Bjorkbom:

Enclosed are copies of our past correspondence in regard to the reclamation of the Callahan Mining Corporation's mine-site on Cape Rosier at Goose Pond.

Though nothing developed from earlier efforts to plan for the restoration of the area with the town of Brooksville's Planning Board back in 1969 there now seems to be a cooperative effort on the part of the Town, State and Callahan firm to develop recommendations for restoring the area.

In your letter you expressed an interest in working with us and we hope you are still interested in doing so. Particular assistance is needed in forestation of waste and tailing dump areas and advice on all the factors along with it such as are common to your departments business.

At the initial meeting of the committee set up to make recommendations (June 8th), I suggested your department be contacted and the representatives of the Maine Mining Bureau, Sea * Shore Fisheries, Selectmen of Brooksville and the Callahan Corp. agreed to this. I sincerely hope you will contact Mr. Fred Beck, geologist for the mining firm for additional information at your earliest convenience. His address is as follows:

c/o Mr. Fred Beck
Callahan Mining Corporation
41 Union Wharf
Portland,
Maine

Thank you.

Sincerely,

Albert E. Sandeckl

cc:

Mr. Fred Beck

11 JUNE 1971

PRESS RELEASE

DATE RELEASE

Albert E. Sandecki
50 Tanner Street
Haddonfield, N.J. 08033
Tel. 609 429 1310

(immediate or at
earliest convenience)

THE NEWLY FORMED GOOSE POND RECLAMATION COMMITTEE HAD ITS FIRST MEETING AT THE CALLAHAN MINING CORPORATION OFFICES ON JUNE 8th. THERE ARE FIVE MEMBERS ON THE COMMITTEE AS FOLLOWS: MR. JOHN GRAY, BROOKSVILLE SELECTMAN
MR. FRED BECK, GEOLOGIST FOR CALLAHAN MINING
MR. ROBERT DOW, BIOLOGIST SEA & SHORE FISHERIES
MR. ROBERT DOYLE, MAINE MINING BUREAU
MR. ALBERT SANDECKI, RESIDENT REPRESENTATIVE

THE COMMITTEE IS SET UP WITH MR. SANDECKI AS CHAIRMAN , MR. GRAY AS VICE CHAIRMAN AND MR. BECK AS SECRETARY.

MR. GRAY AS SELECTMAN WOULD LIKE TO SEE A VIABLE SOURCE OF EXTENDED EMPLOYMENT AND TAX RATABLE LAND IN THE RECLAMATION OF THE AREA.

MR. BECK AS CALLAHAN'S REPRESENTATIVE EXPRESSED THE COMPANY'S INTENTIONS TO COOPERATE IN CARRYING OUT THE RESTORATION WITH AVAILABLE MANPOWER AND MACHINERY AT THE MINE.

MR. PAUL VENNO REPRESENTING MR. DOW AND THE DEPARTMENT OF SEA & SHORE FISHERIES POINTED OUT THE NEED IN CONSIDERING THE MARINE ENVIRONMENT IN THE REFLOODING OF THE POND BEDS. MR. DOYLE OF THE MAINE MINING BUREAU WILL LOOK INTO THE POSSIBILITY OF FUNDING TO HELP IN THE RESTORATION OF THE OPEN-PIT MINE AREA.

THE BASIC PROBLEM SEEMS TO CENTER ON WHETHER THE MINE'S OPEN-PIT SHOULD BE REFLOODED WITH SALT OR FRESH WATER, THIS ALONG WITH THE ADDED PROBLEM OF TOXIC METAL IONS CREATES MANY QUESTIONS.

MR. SANDECKI AT THE DIRECTION OF THE COMMITTEE MEMBERS WILL ARRANGE FOR A FIELD STUDY TEAM FROM THE ACADEMY OF NATURAL SCIENCES OF PHILADELPHIA TO COME TO THE MINE-SITE IN JULY. THE ACADEMY'S DEPARTMENT OF LIMNOLOGY HEADED BY DR. RUTH PATRICK HAS FOR TWO DECADES CARRIED ON BASIC RESEARCH IN THE ECOLOGY OF STREAMS, LAKES AND ESTUARIES. THE SURVEY TEAM WILL OFFER THEIR RECOMMENDATIONS AT THE END OF THEIR STUDY.

* *Albert E. Sandeck*
Committee Chairman

LIMNOLOGY
THE ACADEMY OF NATURAL SCIENCES
NINETEENTH AND THE PARKWAY
PHILADELPHIA, PENNSYLVANIA 19103



FWW

Mr. Albert E. Sandecki
50 Tanner St.
Haddonfield, N.J. 08033

BACK ON TUESDAY
DR. PATRICK.

Called to arrange for
Surgery team / 6/11/71
DR. PATRICK to call 6/12
APPOINTMENT TUESDAY 15TH
WITH DR. PATRICK . 9:30 AM.

TUES. AM. 9:30 AM



THE ACADEMY OF NATURAL SCIENCES

NINETEENTH AND THE PARKWAY, PHILADELPHIA, PENNSYLVANIA 19103

Phone LO 4-3921 Area Code 215

May 12, 1971

Mr. Albert E. Sandecki
50 Tanner St.
Haddonfield, N.J. 08033

Dear Mr. Sandecki:

I was pleased to know that the Frontiers article concerning my work interested you.

The Limmology Department has done a number of studies in the general area you describe, including the subject of acid mine wastes. However, the information that you provide with respect to the open-pit mine is not sufficient for us to reach any specific conclusions. Further information as well as a survey of the mine location would be necessary before we could advise you.

If you would be interested in having the Limmology Department do some research on your problem, I suggest that you contact Dr. Ruth Patrick, Chairman of the Limmology Department, to make arrangements.

Thank you for your inquiry.

Sincerely,

Tom Lloyd
Tom Lloyd

RL:sk

MRS. ANDERSON

4PM MEETING 21ST FRIDAY.
DR. PATRICK

RUTH PATRICK, Ph.D.

CURATOR OF LIMNOLOGY
ACADEMY OF NATURAL SCIENCES
OF PHILADELPHIA

19TH AND THE PARKWAY
PHILADELPHIA 3, PA.

RECLAMATION OF GOOSE POND

MAY 25TH

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toxic metals be precipitated more effectively in salt
2. WOULD THE CHELATING EFFECTS OF THE TOXIC METAL IONS BE MORE EFFICIENT IN SALT OR FRESH WATER ?
3. IF THE POND AREAS WERE IMPOUNDED WITH FRESH WATER WOULD THERE BE A TENDENCY TO DEVELOP A CONCENTRATED SOLUTION OF TOXIC METAL IONS ?
MUD & BACTERIA
4. IF THE EBB AND FLOW OF TIDAL SALT WATER WERE INTRODUCED INTO THE PONDS WOULD THERE BE A LESS TOXIC SOLUTION OF METAL IONS DEVELOPED ?
probably less toxic solution
5. WHETHER THE PONDS ARE IMPOUNDED OR NOT WOULD THE TOXIC METAL IONS HAVE A TENDENCY TO CONTAMINATE THE FRESH WATERTABLE IN THE IMMEDIATE AREA OF THE PONDS ?
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A.E.S. 5/18/71

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TOXIC METALS BE CHELATED MORE EFFECTIVELY IN SALT OR FRESH WATER
CHELATED BY COLLOIDS (MUD, BACTERA)
3. IF THE POND AREAS WERE IMPOUNDED WITH FRESH WATER WOULD THERE BE A TENDENCY TO DEVELOP A CONCENTRATED SOLUTION OF TOXIC METAL IONS ?
PROBABLY LESS DISSOLVED TOXIC METALS BUT MIGHT ACCORDING TO CIRCUMSTANCES BE QUITE TOXIC.
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TOXIC HEAVY METAL IONS
REFERRED TO ARE:

COPPER.
ZINC.
LEAD.

AND ANY OTHERS ASSOCIATED
WITH A COPPER+ZINC MINE.

AS.

A.E.S. 5/18/71

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STATE OF MAINE

Inter-Departmental Memorandum Date April 27, 1971

To Members of the Maine Mining Bureau

Dept. _____

From Robert L. Dow, Marine Research Director

Dept. Sea and Shore Fisheries

Subject Rehabilitation of the Goose Pond Cove strip mining site

Rehabilitation of this area poses an important heavy metal toxicity problem. Some heavy metals are acutely toxic to marine organisms at various levels above background. Significant and substantial increases in the heavy metal content of soft shell clams in Goose Pond Cove have occurred since the operation of the separation plant at Harborside. The enclosed table shows the levels in soft shell clams before and after operation of the separation plant.

By retaining the dam which excludes sea water, the pit created by extraction of the ore body can serve as a settling basin comparable in many respects to a large-scale tailings pond. Such retention should appreciably reduce the amount of toxic ions being carried directly into sea water by tidal flushing after termination of the mining operation.

Should the dam be removed and free flow of tidewater in and out of the area permitted, it is probable that the level of toxic metals would increase above the levels indicated by 1963 and 1969 monitoring samples.

It can be anticipated that in the near future the Federal Government, through the F.D.A., will establish heavy metal limits for human foods and that the levels of some metals found in Goose Pond Cove will likely exceed these tolerances.

OPINION OF
Harold B. Staley
Specialist in water treatment
Masters degree in Chemistry Columbia Univ.
Research Librarian MOBAY CHEM. (MONSANTO BAYER)

My understanding of the problems may be summarized as follows:

(1) The report from the Colorado School of Mines dated October 22, 1965 concerns the toxicity of the tailings from the proposed(?) mine. Assuming that they (Callahan) used the process outlined, their study indicated that sodium cyanide would be the only chemical present in toxic concentration and that it could be treated by dilution or by an alkaline chlorine treatment. I cannot find fault with their conclusion.

(2) Since the mine has (or will) close the above no longer applies and the question now appears to be whether to impound the surface water which will fill the open pit and tailings pond, or to allow sea water to enter and flow out periodically with the tide.

There can be little doubt but that fairly high concentrations of copper and zinc will be leached out of the ore remaining in the pit for some time to come by either fresh or salt water. For this reason, it would seem more desirable to impound the water, attempting to keep the concentrated water localized. If we assume for the moment that this water could be kept stagnant, eventually the concentration of copper and zinc will reach an equilibrium and remain fairly constant (probably too high for potable water). Since as Mr. Sandeck points out, surface water will continue to run into the pit; it must also overflow and will carry some of the chemicals out of the pond. If the water flowing into the pit enters only on the surface it is possible that it might flow out without causing too much mixing and leave the chemicals in the pond. In any case the outflow should be analyzed frequently to determine whether it should be allowed to run into the sea untreated. If your state has a water laboratory, they could run such tests periodically, the water in the pit should be sampled at various depths and tested at intervals to determine what happens there. I cannot think of any feasible process which would precipitate the metal in the pond.

(3) The other question which has been raised is what will happen to the wells in the vicinity, when the pit is filled with water? Will the water flow from the pit to the wells and contaminate them with metals. Inasmuch as the sea water has already appeared in wells, it is quite possible that when the pit fills with water, the pressure will be reversed and prevent sea water from entering the wells. On the other hand, water from the pit may find its way into the wells. Obviously these wells should be tested frequently for copper and zinc. These metals can be removed by the ordinary household Zeolite softeners which are leased or sold around here by Culligan and Permutit and other firms specializing in water service. Such softeners will not remove the sodium chloride found in sea water and make it potable.

To return to the specific questions raised in your May 7th letter (a) I am unaware of any naturally occurring materials in fresh water or salt water which would precipitate these metals significantly. The salts of copper and zinc are quite soluble but can be precipitated in the laboratory with laboratory reagents. They can be removed by Zeolites etc., but these conditions do not prevail in the pond. (b) It seems to me that impounding of fresh water in the pit would be safer than to allow sea water to flow in and out of the pit, for reasons discussed above.

Perhaps my recommendations can best be summarized by suggesting frequent analysis of the water in the pond, the pond effluent and the several wells, in order to get the necessary information. Secondly treat the well water with a Zeolite softener, (assuming sea water no longer enters the wells.) I am quite sure analytical methods are available for copper and zinc, which might be suitable for household testing I would be glad to look up such methods +---- if you wish. + would also suggest that you look into the availability of state laboratories for testing these waters.

Harold B. Staley
New Martinsville, W. Va.

TOXIC METALS IN THE MARINE ENVIRONMENT

The eastern two-thirds of coastal Maine is mineralized by varying combinations of heavy metals. Ore processing has been going on in the Cape Rosier area since January 1968. Preliminary mining operations have been conducted in the vicinity of Blue Hill, and it is anticipated that Knox Mining will commence operations at Union some time in 1970. Cobscook Bay is another comparatively high interest area which may very well be mined at some future time.

Three sources of information are available on what is likely to happen to the Maine coast from strip mining for heavy metals:

- (1) experimental results from laboratory research here and elsewhere,
- (2) literature on the subject, and (3) continued field observations.

Forecasts of the toxic effects to the marine environment of heavy metals and associated wastes are extremely difficult because of variations in the chemical interaction of these elements in sea water and marine sediments with the biological behavior of plants and animals. No information is yet available on how long contamination will persist after the ore body has been removed. Since toxic ions are found in marine sediments, it is assumed they will persist for many years.

In order to carry out their legal responsibilities, the Department of Sea and Shore Fisheries and the Maine Water and Air Environmental Improvement Commission requested assistance of the Federal Water Pollution Control Administration and the U. S. Public Health Service in processing samples of fresh and salt water, soft shell clams, and rockweeds, since neither of the two State departments had the analytical equipment essential for this type of work.

Analytical results indicate that sediments serve as a source of contamination affecting sea water, rockweeds, and shellfish.

At Cape Rosier, copper ranged from .1 to .4 ppm in sea water, or concentrations up to 400 times greater than in England, Woods Hole, and California. Rayment and Shields reported a toxicity threshold of about .1 ppm for the sandworm, except for the bloodworm the most valuable marine species in Maine, worth approximately \$1.50 per pound to the fisherman, nearly twice the value of Maine lobster, the most valuable species per pound of any major commercial fishery in North America.

Experimental survival of sandworms continued for three weeks at concentrations below .1 ppm but considerable mortalities occurred at .2 ppm in seven to ten days, and 100 percent mortality in seven days at .4 to .5 ppm, or approximately equivalent to the maximum of the seawater range at Cape Rosier.

Pringle found that copper is extremely toxic to soft shell clams at .02 ppm. The 1968 average at the Cape Rosier mine outfall was .08 ppm. At other stations the concentration ranged to 30 times the lethal level shown by laboratory experiments.

In 1953 Harriman investigated the toxic effects of metals in natural and artificial seawater systems designed for holding lobsters alive. He found the expected days of survival for lobsters exposed to various metals normally used in flow-through as well as closed water systems to be 3 1/2 days for copper, 18 days for zinc, 25 days for aluminum, and 28 1/2 days for lead and stainless steel, while lobsters in the control tanks survived an average of 55 days.

The Public Health Service in its recommended guidelines for metallic levels in shellfish has indicated 2. ppm as a maximum tolerance for the combined metals of cadmium, lead, mercury, and chromium. In the Cape Rosier sampling at nine collecting stations the range before full plant operation for lead, chromium, and cadmium was 2. to 7. ppm, with an average before

operation of 4. ppm, while the post-operational average was 6. ppm, an increase of 50%. The range of post-operational surveys was from 1. to 24. ppm.

Levels of iron, zinc, chromium, and manganese at Cape Rosier are at the maximum of the range considered to be normal for soft shell clams.

Of particular interest in Hancock County is the high level of lead occurring in shellfish from the area. Pringle and his associates reported in 1968 that lead uptake in oysters, hard clams, and soft clams adversely affected their digestive and reproductive systems.

The average level of lead in shellfish from the sampling stations in December 1967 was 2. ppm, with a range from 1. to 5. ppm. Later samplings averaged nearly 4.5 ppm. The U. S. Food and Drug Administration limits lead in foods to 7.0 ppm.

There are two possible interpretations of the high levels of heavy metals revealed by these animals. One is that mining operations have distributed the metallic ions more widely than we had anticipated. The other is background contamination from the numerous sulphide outcrops along the shore and the partially worked prospects from previous mining operations. In view of these two possibilities, we have set up 12 additional sampling stations around the perimeter of the Castine-Blue Hill peninsula near known sulphide outcrops, in the vicinity of previously worked surface mines, and at sites where there is no evidence of outcrops or of previous operations.

Combined levels of cadmium, chromium, and lead from sampling stations adjacent to the mine outfall were nearly three times as high as the average from other Cape Rosier stations and twice as high as the average of nine stations scattered throughout the Castine-Blue Hill peninsula. Since post-operational sampling of mine outfall stations showed 100% increase in combined metal levels, we assume that this increase is attributable to the operation of the ore separation plant.

The proposed operation in Union on the St. George River poses some additional problems, since process water from the tailings pond is scheduled to be dumped into the St. George River above the town of Warren. The Department of Sea and Shore Fisheries has been working with the town of Warren for years, removing obstructions and improving the fish passage facilities in order to rehabilitate the St. George for anadromous fish -- alewives, shad, smelt, striped bass, and salmon. We have estimated that the primary wholesale value of alewives and smelt alone will amount to more than a quarter million dollars annually when the entire system is open to upriver migrations. Deleterious effects of heavy metals on finfish are such that we can anticipate the complete destruction of anadromous populations using the river for spawning purposes.

What are the economic choices between the mining of non-renewable resources and the commercial use of renewable natural resources? Four considerations need to be given to the incompatibility of renewable marine resources and base metal mining:

- (1) renewable resources are, as the name states, renewable and will continue to be indefinitely available for commercial and recreational use.
- (2) non-renewable resources are usable only once and are non-recurring.
- (3) several heavy metals are toxic to renewable marine resources that are of major importance to the coastal economy of Maine: lobsters, shrimp, crab, anadromous fishes, marine worms, and shellfish.
- (4) a. The actual value of the mining industry to the Maine economy according to the Bureau of Mines Minerals Yearbook for 1967 was \$15 million. Of this total, \$8 million plus, or 56%, consisted of sand, gravel, and rock. The remaining major component, with a value of \$6.5 million included portland and masonry cement, feldspar, and other confidential data.
b. By comparison, in 1967 the primary wholesale value of the commercial fisheries in Maine amounted to \$71 million while the marine sport

fisheries amounted to an additional \$5 million, or a total five times the value of mining.

Hancock County is the principal lobster producing area in the world. For the last 17 years annual catch has averaged five and two-thirds million pounds, with an annual primary wholesale value of four and two-thirds millions of dollars; at 1968 values, \$6.7 million each year.

The lobster catch in Hancock County alone has a higher primary wholesale value than all economic activity from Maine mining other than gravel, sand, and rock.

Unless we exterminate the lobster by toxic metal, pesticides, or other chemical and industrial poisons, this resource will continue indefinitely to support an important Maine coastal industry in contrast to the transitory contribution of non-renewable resource exploitation.

The effect of coastal heavy metal mining ranges from the potential of economic disaster to a costly monitoring and control program to insure minimum hazard to public health and minimum damage to infinitely more valuable renewable resources.

ROBERT L. DOW

March 15, 1969

REFERENCES

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RONALD W. GREEN, COMMISSIONER



STATE OF MAINE

DEPARTMENT OF SEA AND SHORE FISHERIES

STATE HOUSE

AUGUSTA, MAINE 04330

April 29, 1969

Mr. Albert E. Sandecki
50 Tanner Street
Haddonfield, New Jersey 08033

Dear Mr. Sandecki:

Enclosed is a station summary of the metal analyses of clam samples for the four series.

Although this is public information, care must be exercised in the interpretation of the data. For example, you will find that my comments in my paper are largely limited to the assumption that increases after December 1967 can be attributed to the operation of the separation plant.

Very truly yours,

A handwritten signature in cursive script, appearing to read 'Robert L. Dow'.

ROBERT L. DOW,
Marine Research Director

RLD/jwu
Enc.

These clam samples were analyzed by the Northeast Marine Health Sciences Laboratory, Water Supply and Sea Resources Program, Narragansett, Rhode Island, by B. H. Pringle, Ph.D.

Station 1

Metal	Dec., 1967	April, 1968	June, 1968	Sept., 1968	Range
Cadmium	0.17	0.18	0.09	0.1098	.09- .18
Cobalt	<.20	0.11	0.46	1.30	.11- 1.30
Iron	93.60	89.75	327.00	1028.1	89.75-1028.1
Lead	2.36	4.62	2.44	2.56	2.36- 4.62
Nickel	<.20	0.73	2.48	1.19	<.20- 2.48
Zinc	14.69	16.61	20.08	13.94	13.94- 20.08
Copper	2.81	2.72	1.79	3.126	1.79- 3.126
Chromium	0.23	4.24	1.198	1.19	.23- 4.24
Manganese	2.35	68.25	15.58	341.2	2.35- 341.2

Station 2

Cadmium	0.17	0.08	.336	0.058	.08- .18
Cobalt	<.20	0.65	0.0	0.187	0 - .65
Iron	123.75	262.00	177.30	115.80	115.80- 262.00
Lead	2.36	1.13	2.22	1.053	1.053- 2.36
Nickel	<.20	0.11	0.75	0.685	.11- .75
Zinc	12.62	13.79	17.26	12.60	12.60- 17.26
Copper	3.22	2.34	1.82	2.644	1.82- 3.22
Chromium	1.36	1.27	1.22	0.504	.504- 1.36
Manganese	5.91	17.27	10.91	2.28	2.88- 17.27

Station 4

Cadmium	0.19	0	0.129	0.7	0 - .7
Cobalt	<.20	0.93	0.0	3.484	0 - .93
Iron	138.90	678.2	189.20	1181.5 ✓	138.90-1181.5
Lead	1.37	3.15	1.90	13.98 ✓	1.37- 13.98
Nickel	<.20	0.0	0.19	2.04 ✓	0 - 2.04
Zinc	15.15	14.44	18.12	43.60 ✓	14.44- 43.60
Copper	2.99	4.28	1.59	7.52 ✓	1.59- 7.52
Chromium	1.08	1.56	0.232	1.469	0.232- 1.56
Manganese	6.04	43.75	8.34	80.60	6.04- 80.60

Station 6

Cadmium	0.17	0.17	0.114	0.0995	0.0995- .17
Cobalt	<.20	0.48	0.0	0.339	0 - .48
Iron	154.00	513.50	149.50	477.0	149.50- 513.5
Lead	1.79	2.44	1.62	1.712	1.62- 1.79
Nickel	<.20	0.15	0.21	2.67 ✓	.15- 2.67
Zinc	13.30	16.56	15.00	15.65 ✓	13.30- 15.65
Copper	3.09	2.64	2.23	3.33	2.23- 3.33
Chromium	0.77	2.27	0.444	1.734	.444- 1.77
Manganese	5.89	7.98	3.19	5.46	3.19- 7.98

Station 7

Metal	Dec., 1967	April, 1968	June, 1968	Sept., 1968	Range
Cadmium	0.17	0.084	0.146	0.121	0.084- .17
Cobalt	<.20	0.676	0.0	0	0 - .676
Iron	75.08	281.80	76.75	580.54	75.08- 580.54
Lead	1.15	2.144	1.50	1.914	1.15- 2.144
Nickel	<.20	0.0	0.07	1.138	0.0 - 1.138
Zinc	13.62	16.22	15.35	17.41	13.62- 17.41
Copper	2.42	4.61	1.62	2.935	1.62- 2.935
Chromium	0.26	1.406	0.233	1.179	.233- 1.406
Manganese	1.31	3.92	1.759	19.93	1.31- 19.93

Station 8

Cadmium	0.30	0.854	0.625	0.621	.30- .854
Cobalt	<.20	1.160	0.484	0.706	1.160- .706
Iron	526.00	1709.18	868.55	1942.0	526 -1942.0
Lead	4.94	19.50	5.26	12.42	4.94- 19.50
Nickel	<.20	0.0724	0.61	1.144	.0724- 1.144
Zinc	18.50	45.20	69.58	35.60	18.50- 69.58
Copper	4.89	8.41	7.89	4.84	4.84- 8.41
Chromium	1.36	3.94	1.340	1.681	1.36- 3.94
Manganese	20.20	204.25	37.45	101.80	20.20- 204.25

Station 9

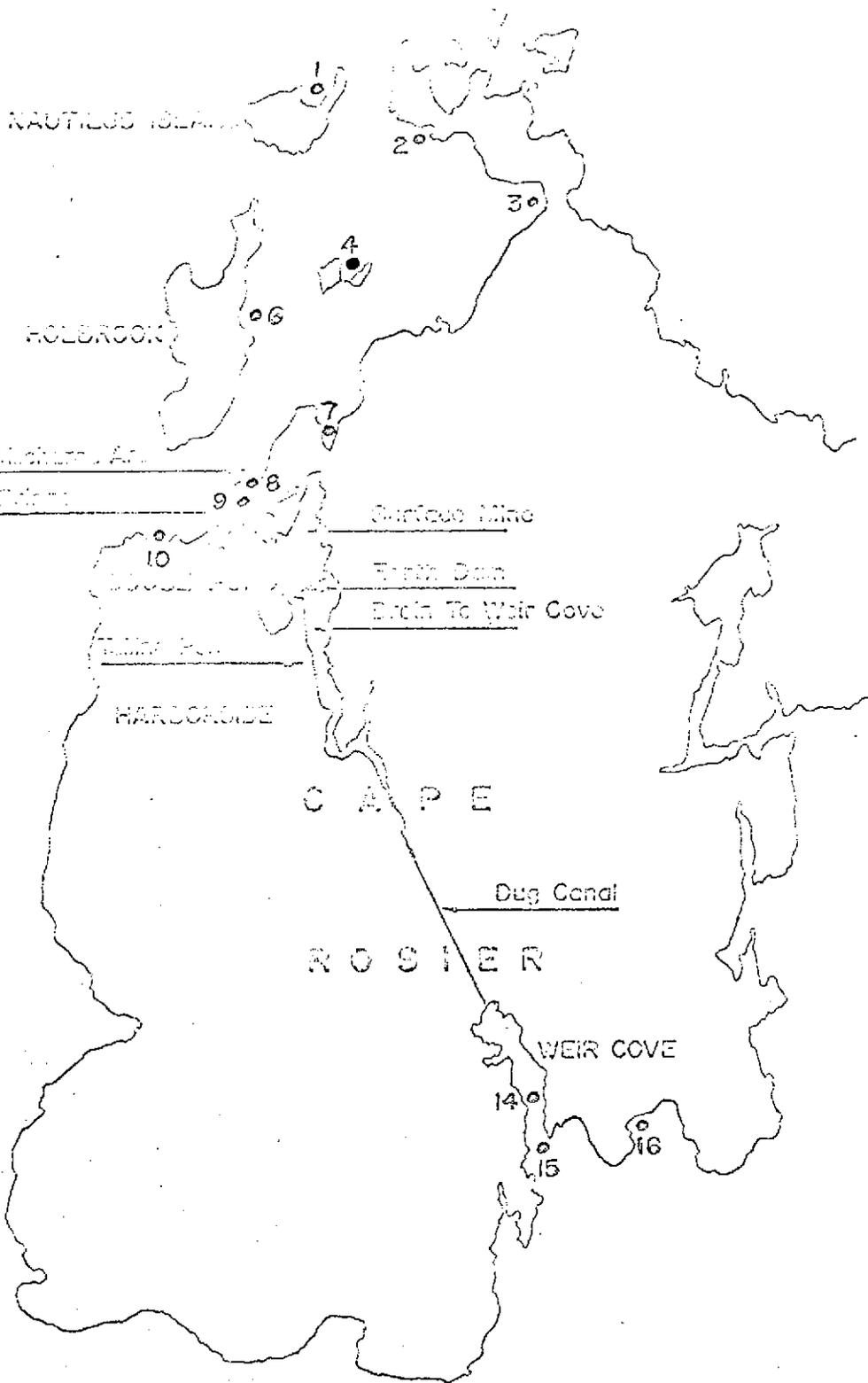
Cadmium	0.27	0.307	0.276	0.153	.153- .307
Cobalt	<.20	0.692	0.0	1.013	0 - 1.013
Iron	759.71	1311.0	123.10	690.00	123.10-1311.0
Lead	2.40	16.99	2.47	2.16	2.16- 16.99
Nickel	<.20	2.09	0.0	1.91	0 - 2.09
Zinc	19.05	28.45	36.39	13.49	13.39- 36.39
Copper	4.64	6.83	3.02	3.96	3.02- 6.83
Chromium	1.19	2.094	0.383	1.149	.383- 2.094
Manganese	21.40	23.35	2.87	174.30	2.87- 174.30

Station 11

Cadmium	-	0.08	0.134	0.126	.08- .134
Cobalt	-	0.567	0	0.38	0 - .567
Iron	-	286.74	122.40	330.2	122.40- 330.2
Lead	-	2.185	0.54	0.171	0.171- 2.185
Nickel	-	0.276	0.59	0.76	.276- .76
Zinc	-	13.74	16.23	14.60	13.74- 16.23
Copper	-	2.17	1.61	2.32	1.61- 2.71
Chromium	-	2.015	0.646	1.31	.646- 2.015
Manganese	-	39.90	22.49	34.10	22.49- 39.90

Station 14

Cadmium	0.17	0.47	0.126	0.197	.126- .47
Cobalt	<.20	0.78	0.482	1.49	<.20- .78
Iron	430.99	682.21	305.50	2471.5	305.50-2471.5
Lead	2.22	2.57	1.35	5.61	1.35- 5.61
Nickel	<.20	1.35	1.49	1.45	<.20- 1.49
Zinc	12.54	14.95	16.45	16.46	12.54- 16.45
Copper	2.60	2.53	1.41	2.18	1.41- 2.60
Chromium	1.31	2.52	0.230	1.433	.23- 2.52
Manganese	3.62	28.55	34.30	191.40	3.62- 191.40



STATION LOCATIONS
CAPE ROSIER, MAINE

* Misc. statements by Callahan
and Weekly Packet on mine *

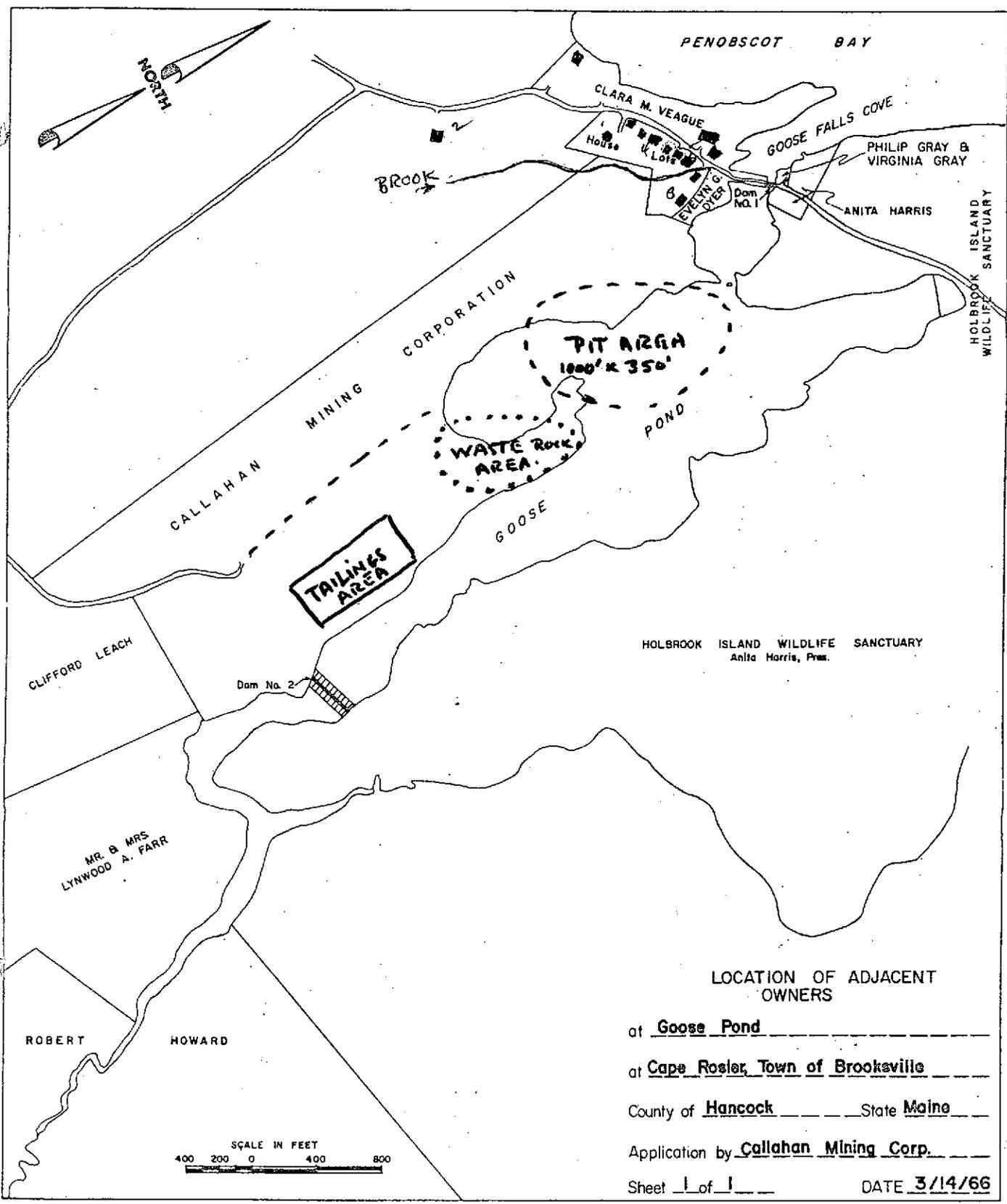
- Jan. 13th 1966 Callahan announces open-pit mine.
- Feb. 3rd 1966 Reed signs bill permitting Callahan to drain ponds L.D. 1705 1/17/66
Maine Supreme Court decision 1/27/66
"State has not only right but the duty to use such lands for the greatest public good."
- Apr. 7th 1966 Maine Water Improvement Commission testimony. Doyle, "no significant toxic effect of chemicals used in (ore) processing-- Chemicals used would be added in such small quantities, Dept. memo Dow to Doyle (ref.)"
- Apr. 28th 1966 Packet Editorial, MINE COULD USE SOME HELD
Callahan's remarkable plans on their intent to restore the area once the minerals are removed. The pond will be reflooded and returned to a state much as it is now.
- Aug. 31st 1967 W.P.edt/ Mine officials say that by modifying Goose Falls it would be possible to have a completely protected harbor, considerably larger than the area with water at low tide prior to the mine development.
- Sept. 28th 1967 W.P.edt/"on restoration" Callahan officials say no blue prints are drawn up now because no one knows exactly what the town will desire several years from now. Reiterated their desire to satisfy the town in this respect when that time comes. (re Prentiss Carlisle Co. 12/23/65 Wildlife management)
- Jan. 17th 1968 Ellsworth American/ Doyle stresses that in establishing aims for restoration of the pond-site, the Maine Mining Bureau will be working with other state agencies including the Maine Highway Dept. and Sea & Shore Fisheries, also MWIC & Fish and Game Dept.
- Feb. 22nd 1968 Opening of mine* Callahan officials have given assurances that they will work with local & State agencies to restore the area to a useable asset when mining is Completed.

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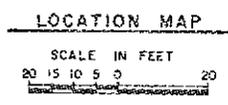
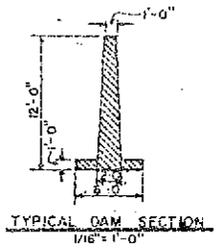
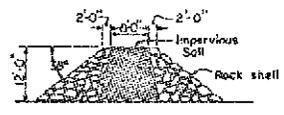
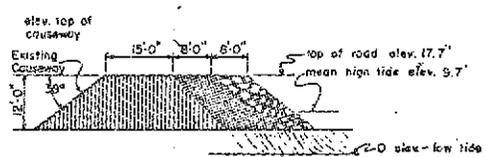
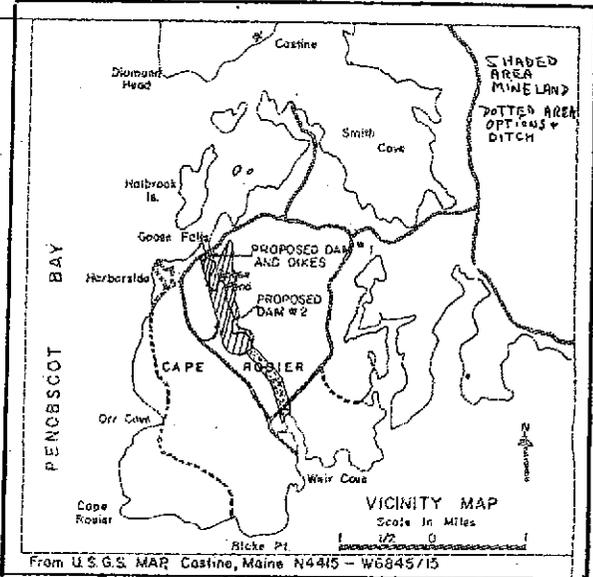
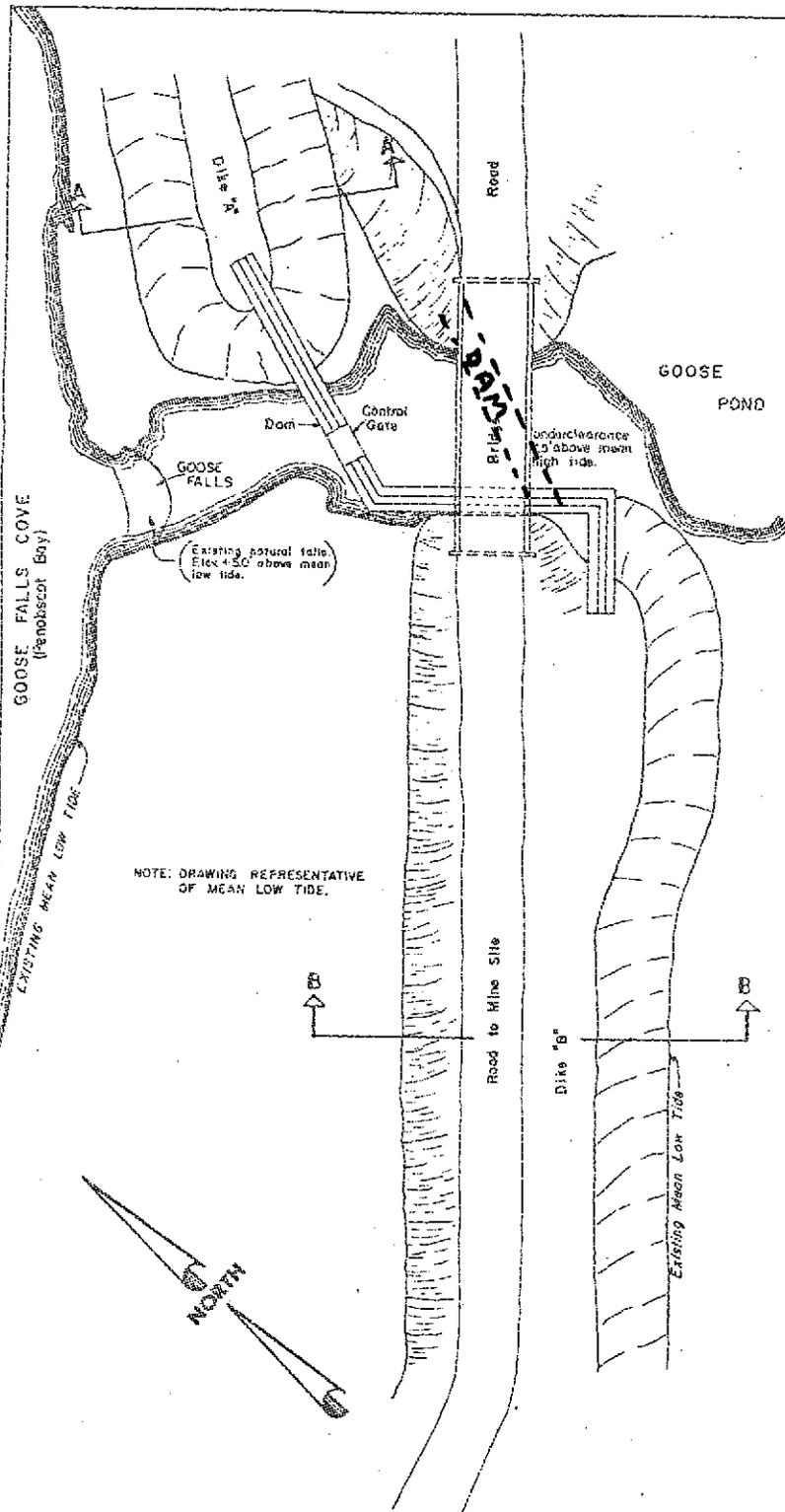
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1 MALCOLM GRAY
 3 ELLIOT CUSHING
 4 ALBERT SANDECKI
 5 BRINARD FARNHAM
 2 BARRY BORING



LOCATION OF ADJACENT OWNERS

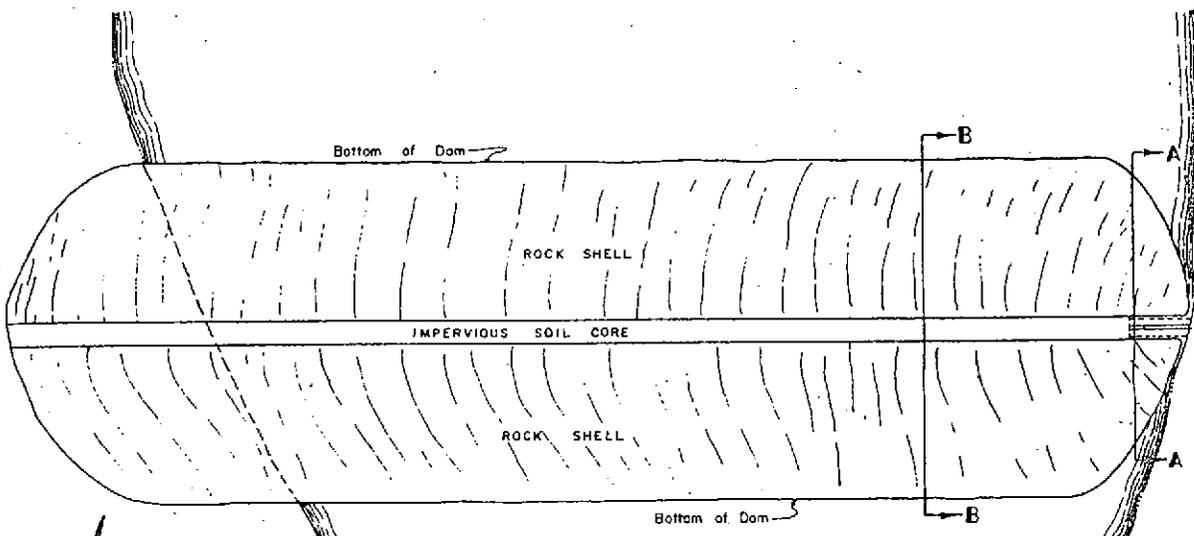
at Goose Pond
 at Cape Rosier, Town of Brooksville
 County of Hancock State Maine
 Application by Callahan Mining Corp.
 Sheet 1 of 1 DATE 3/14/66



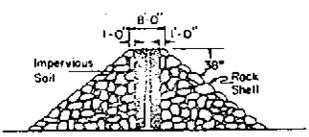
PROPOSED DAM NO. 1 & DIKES
 at Goose Pond
 at Cape Rosier, Town of Brooksville
 County of Hancock State Maine
 Application by Callahan Mining Corp.
 Sheet 1 of 2 DATE 3/14/66

CALLAHAN MINING CORPORATION PROP

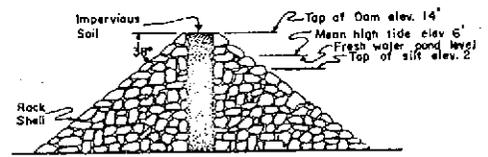
HOLBROOK WILDLIFE SANCTUARY PROP



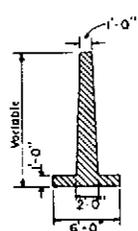
PLAN



SECTION A-A
1" = 60'



SECTION B-B
1" = 60'



TYPICAL DAM SECTION
1/16" = 1'-0"

PROPOSED DAM NO. 2

at Goose Pond

at Cape Rosier, Town of Brooksville

County of Hancock State Maine

Application by Callahan Mining Corp.

Sheet 2 of 2 DATE 3/14/66

50 Tanner Street
Haddonfield,
New Jersey 08043
March 22, 1971

The Weekly Packet
Blue Hill, Maine

Mr. Jerry Durnbaugh
Editor Publisher

Dear Mr. Durnbaugh:

Thanks for your letter of the 18th. Perhaps in my reading your article too much was read into it.

I think we share the understanding that the reclamation of the Goose Pond area is an important matter.

Hopefully whatever is done in the area is with the intention to do the right thing.

In future coverage of the reclamation proposals to be made, if you want the views of an immediate neighbor to the mine please feel free to stop around.

Sincerely,

Albert E. Sandeckl

The WEEKLY PACKET

The Weekly Newspaper Serving Southwestern Hancock County

Blue Hill, Maine

P.O. Box 343

Phone: Area Code 207, DRake 4-5643

March 18, 1971

● Offset Printing

● Commercial
Photography

Mr. Albert E. Sandecki
50 Tanner Street
Haddonfield, New Jersey

Dear Mr. Sandecki:

First, I think it is extremely difficult to misquote a written article, but I see you succeeded. Congratulations!

The article did not refer, specifically, to you. Nor did it imply that all complaints of all adjacent residents were either unjustified, unreasonable, or both. In fact, there is no way such a conclusion could be drawn from the editorial which, coupled with your misquotation from it, leads one to wonder if you have read it?

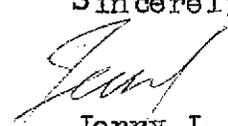
As I say, your particular problems with Callahan were not foremost in my mind as I composed the piece. You certainly had some legitimate complaints. Your issue of the color of the pump house, for example, would not fit the category of unjustified. Picayune, perhaps, but not really unreasonable. And a lovely job you did in decorating the building, too, I might add!

No, I was thinking more of the resident who demanded Callahan prevent airplanes from flying over and photographers from taking pictures of the pit. And other similar complaints which I--and I am sure you, too--consider both unreasonable and unjustified.

Since I am certain you and I would not define "ecological waste" (your term) in exactly the same words, and there are others who would disagree with the both of us, I rather expect there will be some "unjustified or unreasonable" demands during the reclamation planning. I'm sure that whatever the final outcome is it will not receive unanimous and enthusiastic endorsement. And certainly it would be unreasonable to blame this paper for any and all "bad attitudes" that might be generated because we had the temerity to suggest that not all complaints against the mine had merit.

Thank you for your kind words concerning our bringing the matter of reclamation up for examination, though I fail to see how you could be surprised by it since it is consistent with our views on the matter in the past. And you need not fear the fairness of our coverage. We have never been unfair in coverage of any matter yet, and have no intention of departing from the professional canons of objective journalism.

Sincerely,


Jerry L. Durnbaugh
Publisher

50 Tanner Street
Haddonfield,
New Jersey 08033
March 17, 1971

Weekly Packet
Blue Hill,
Maine 04614

Mr. Jerry Durnbaugh
Editor

Dear Mr. Durnbaugh:

I am writing to you personally and would appreciate your not considering this a letter to the editor for publication.

Would you clarify your broad generalization in the "Time to make plans" 3/11/71 on the "complaining residents near the mine, whose demands were unjustified or unreasonable."

As a neighbor who complained to Callahan I cannot recall conveying an unjustified or unreasonable complaint. Of course the point is to whom is it an unjustified or unreasonable complaint.

Aside from that.. I feel it is your responsibility to be factual and not generalize when it comes to affecting people's attitudes towards one another. Your handling of such terms could conceivably create a potential for or worse yet perpetuate bad attitudes on the part of the Town of Brooksville, State and Callahan officials towards all the residents near the mine. To say nothing of removing consideration, discussion and cooperation with those that live near the mine in efforts towards reclamation of the Goose Pond area.

This is assuming you meant what you said about it's time for all to sit down together and plan for something other than another ecological waste. As you know reclamation is a means of further employment and the end result could be a much higher tax ratable land area.

I was pleasantly surprized to see you have surfaced the reclamation matter and hope your paper will cover the developments fairly in the coming months.

Sincerely,

Albert E. Sandeck

As for legislative controls of open-pit mining operations, I can say that my research has led to many pages on the subject. The most informative books have been sent to me by the Canadian government's provinces of Alberta and Saskatchewan. I could not begin to bring out the technical codes and safety procedures which open-pit operators must by law follow. You are welcome to have these publications if you wish.

It was alarming to discover that the Maine Department of Labor and Industry has no safety codes or rules pertaining to mining.

Maine may indeed have a wealth of mineral development ahead in the future and the industry could be a boom to the state's coffers. However I feel there must be legislation brought into being to guarantee reclamation of the land put to this use. There should be bonding to cover all eventualities of a successful or a failing open-pit mine. The Soil Conservation Service could be a source for particulars on the proper use of the land to be reclaimed. I would think that the University of Maine and their Cooperative Extension Service would be an interested group of technical experts. Lastly Mr. Cordell Moore, assistant to the Secretary of the Interior, has in the past year or so completed an extensive study of the problems with a few suggested legislative cures.

I would feel a bit out of my league with any suggestions other than the ones I have outlined in this letter. I think we would both agree to this point that, exploitation without reclamation is no legacy for future generations.

Sincerely,

Albert E. Sandecki

Callahan mine may close sometime in '72

BROCKSVILLE--Operation of the Callahan Mining Corporation's Penobscot Unit at Harborside will probably end sometime next year.

In a news release last week outlining 1970 mining results, the company reported a consolidated net loss of \$1,223,000 as compared to a 1969 profit of \$371,000.

"At the Penobscot open pit mine in Maine," the statement read,

"1970 was the best production year to date. However, rising operating costs together with the sharp drop in copper prices resulted in re-assessing and substantially reducing ore reserves. It now appears that operation of the unit will be terminated in 1972."

Callahan attributed its 1970 loss to the slowdown in the nation's economy; "an extraordinary charge of \$1,338,000 before taxes to reflect downward assessment of ore reserves at the Penobscot Unit and write-off of the Leach deposit; and non-recurring pre-tax losses of \$794,000 at Avica Corporation and the Pitch Mine, both of which are being phased out in early 1971."

ABOUT 100 area residents are currently employed at the Brooksville mine, and there are no immediate plans to reduce employment, Callahan spokesman Ralph Flow said Tuesday.

Both underground and open pit operations are continuing, and the mine is operating three shifts. The pit has another 80 feet downward to go, Flow said.

The Leach deposit, which involved an underground operation, was terminated because "it didn't look like a viable operation," Flow added.

He said that plans were being made for Callahan officials to meet with Brooksville selectmen and others at the local level in the next few months to map out a restoration plan for the property.

PACKET OPINION

The WEEKLY PACKET

Vol. 11, No. 15
March 11, 1971

If all Printers were determin'd not to print any thing till they were sure it would offend no body, there would be very little printed.

—Benjamin Franklin, 1731

Time to make plans

Back when the Penobscot Unit on Cape Rosier opened a few years ago, officials of Callahan Mining Corporation indicated that restoration of the property, when the mine was worked out, would be in line with the desires of the town of Brooksville.

The life of the mine, they said, was four to six years.

Now several years have passed and the end of the mine can't be very far away.

The Callahan people have been good neighbors. There have been some problems, but Callahan management fell

over backwards to meet complaints of residents near the mine even when, on occasion, those demands were unjustified or unreasonable. Callahan even walked the extra mile in reforestation and screening to make the area as attractive as possible, increased its blasting costs to reduce noise and control fly-rock, developed a re-cycling process to keep its effluent from contaminating waters of Penobscot Bay.

The mine has been good for Brooksville and the entire area. It has provided employment and is a welcome asset to the tax base. Its payroll has kept families off the welfare rolls.

But it is not too early to start development of a restoration plan. In fact, the moment is fast approaching when some decisions are going to have to be made on how the area is going to be left.

It's time, in short, for Brooksville selectmen, citizens, Callahan management, and State officials to sit down together, roll up their sleeves, and come up with a plan that will prove a worked mine can still be an asset and not an ecological disaster.

The Ellsworth American

Thursday, March 11, 1971

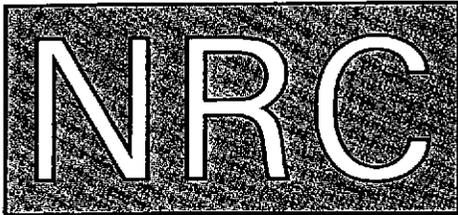
ELLSWORTH, MAINE 04605

Callahan To Stop Mining Next Year

Callahan Mining Corporation has announced that operations at the open pit copper and zinc mine at Cape Rosier in Brooksville will be terminated in 1972.

The company says that 1970 was the best production year to date. "However, rising operating costs together with the sharp drop in copper prices resulted in reassessing and substantially reducing ore reserves," reads a report released by the company on March 5.

"It now appears that operation of the unit will be terminated in 1972."



NATURAL RESOURCES COUNCIL of MAINE

20 WILLOW STREET AUGUSTA, MAINE 04330 207 ~~623-8452~~
622-3101

February 16, 1971

Mr. Albert E. Sandecki
50 Tanner Street
Haddonfield, New Jersey 08033

Dear Mr. Sandecki:

There are some bills in the hopper at the current time; but I would say the idea of "current use" taxation will be presented, but nothing will be passed. It will go to Legislative Research and be studied for at least one year.

At the February Board of Directors meeting, a resolution was passed that the NRC assist in promoting the creation of a Penobscot Bay protection and development committee to prevent undesirable industrialization and to form compatible development programs. This office is providing information on desulphurization plants to local citizens and local organizations on request and is actively assisting the local people to oppose this proposal.

The Bagaduce River dam is still under investigation and, as soon as more information is available, I am sure a position will be taken.

Sincerely,

A handwritten signature in cursive script that reads "Marshall F. Burk".

Marshall F. Burk
Executive Secretary

MFB/s



When will Maine have a new mining law?

Adoption of Maine's new mining regulations — the first designed to protect and conserve Maine land — may be delayed even longer than planned as the result of a Maine Mining Commission (MMC) public hearing at the State House last week.

MMC's director John A. Bader said he had hoped to have the commission's proposed rules and regulations in effect sometime during March, 1970, but the lengthy hearing (nearly four hours) uncovered problems that may mean a target date of either June or July before the new restrictions can be applied to Maine's relatively small mining industry.

The commission, set up Oct. 1, 1969 by the legislature, has had its difficulties getting going.

The recent hearing, Bader was careful to point out, wasn't required by law, but was called to give the mining industry every last possible opportunity to "discuss" the new rules before they become official.

Industry representatives took every opening and chance to avail themselves of that opportunity at the hearing. As a result, the industry's grace period will be extended while several legal questions are ironed out by the attorney general's office.

One of the gray areas in the new rules that was uncovered at the hearing is the question of just when the proposed regulations would become effective for reclamation purposes.

As stated, the Mining, Conservation and Rehabilitation of Land measure becomes effective Oct. 1, 1969. It called for the creation of the Maine Mining Commission and directed that commission to formulate and adopt rules and regulations for the mining industry.

Now, some 16 months after becoming law, Maine and the mining industry will still have to wait another six months before the commission has any operating rules.

And industry spokesmen want to know when the effective date is going to be: October, 1969, or perhaps six months from now, or somewhere in between. This will have to wait for an attorney general's office interpretation.

Another peripheral problem nagging at the commission, which has been working on formulating its rules



and regulations for nearly a year, is one of membership of the commission itself.

The MMC went through more than 30 applicants before it picked Bader as director last July, nearly a year after the body had been created. Now the commission has its own staffing dilemma.

The law calls for the commission to be composed of five members: one from the mining industry, one representing conservation interests, and the remaining three members representing the general public, with at least two of these with training in geology, engineering, or planning.

The original commission included Peter S. Kelley, a

Caribou attorney, as chairman; James Nesbitt, Lewiston, as vice chairman (he's with the Androscoggin Regional Planning Commission); State Geologist Robert Doyle; Edward Anderson, of the Maine Andiron Society; and John Malcom, of Callahan Mines in Harborside.

Malcolm left for Brazil in September, and Kelley resigned December 31 because he will be a member of the 105th Legislature.

This brings the commission down to three members (only two appeared at the public hearing: Nesbitt opened the meeting and left; but Doyle sat in throughout), with the mining industry lacking a representative on the panel, and the recent gubernatorial recount holding up new appointees thus far.

At the hearing, Callahan Mines vice president Charles Sneed was extremely quick to point out that the mining industry hasn't been represented on the commission since September, while many of the regulations were being drawn up, and asked that the hearing be deferred until such time as an industry representative had been appointed to the commission.

He also complained that the new rules and regulations had only been unveiled December 18, and nobody has had an adequate chance to study them.

Other mining spokesmen echoed Sneed's complaint, but the free-form hearing sort of rode over that area of

not for awhile
anyway

discussion and landed in a bog of rhetoric about mining permits, which are called for in the new rules.

The miners (how quaint to think of them thus with their attaché cases and rubber spill attire) objected to the word "permit" in the rules more than they did the intent of such permits. First of all, they didn't like the idea of permits coming up so soon in the rules (it's in the first section), and secondly they had a semantic block in accepting the word itself. They felt it could scare off other interested in developing mining interests in Maine.

Bader pointed out that receiving a permit was merely an indication of approval from the MMC of the firm's mining plan, and that it is a "one-time" permit, and doesn't have to be renewed every year.

Doyle further explained that permit fees (ranging from \$50 up to \$500) weren't required for land already being mined, but would be applicable to any new mining acreage opened up from now on.

Doyle said that a permit under the new rules and regulations would be nothing more than a "signing up," or a "notification that you're in the state and doing business."

Sneed suggested that rather than calling it a permit, it should be renamed as "a notification of presence, or something."

Harold Kaler, of Lime Products Corp., Union, thought it might be more to the point to call it an "approval number" instead of permit.

Robert Fuller, sitting in for the attorney general's office, offered "certificate of approval" in place of permit.

Bader put a halt to all the semantic whimsy by pre-

dicting that "within a year" the legislature would pass new statutes which would make the word "permit" part of the law.

Permits, by the way, would be required for all mining operations in the state from the commission. Granting of such permits would be subject to the filing of a



notice of the intent to mine in Maine; filing of an application; filing of a mining plan, specifications and maps; payment of a mining plan application fee; posting of a performance bond (from \$100 up to \$1,500); and approval of the mining plan, specifications, maps and performance bond.

In the case of several mining sites not adjacent to one another, separate permits would be required for any new areas opened up.

No permits or fees would be required for exploration, although any "disturbance" of the land surface would have to be restored to the "same general condition as it was before the exploration."

This naturally opened up a discussion of when exploration ends and production begins. Doyle asked the industry people if it would help to change the wording to "exploration, development, and production."

And Bader said his personal interpretation of the end of exploration operations and the beginning of production is when a firm starts to receive money for its product.

That, of course, swept the hearing into a discussion of the definition of the word product, which mining people said is different from company to company.

"Product" as defined by the new law means "solid, peat, stone, minerals, ores, topsoils, or other solid matter," which would seem to cover anything coming out of the earth except swamp fog.

Doyle said the legislature's intent in passing the new mining laws was twofold: to protect the environment from excessive debts, and to protect the present mining operators.

He admitted, however, that these two points had never "made a compatible connection" so far.

Bader tried to convince the mining representatives that the proposed Maine regulations are "very mild."

"We're not over regulating," he said. "We've studied the mining rules and regulations of 37 of the 50 states, and all of those rules are newly passed or are going to their state legislatures for approval."

"The conservation interests are on our backs to get this thing through," Bader said. "We're only concerned with what you do to the surface of the earth. We have no intention of being a restrictive agency."

"We're going to be on your side 99 percent of the time, in order to help keep your operations going," he said.

One of the most pressing and valid questions by the mining operators was the question of how many state