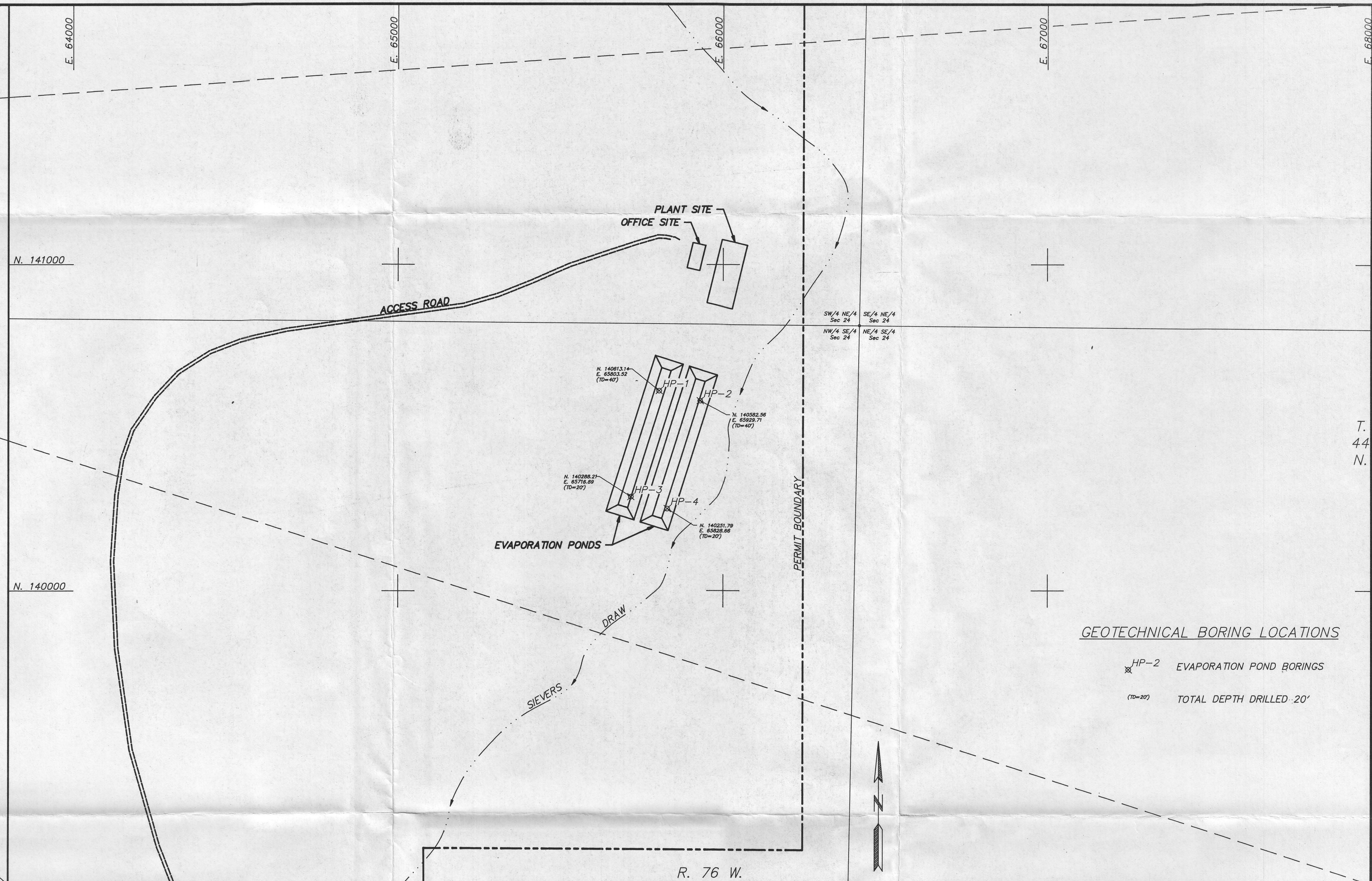


**LOCATION MAP**

SCALE: 1" = 2000'



**PLAN VIEW**

SCALE: 1" = 200'

**GEOTECHNICAL BORING LOCATIONS**

HP-2 EVAPORATION POND BORINGS  
(TD=20') TOTAL DEPTH DRILLED 20'

**EVAPORATION PONDS (TWO REQUIRED WITH SAME DIMENSIONS)  
VOLUME CALCULATIONS (USING PRISMOIDAL FORMULA)  
OPTION A (SINGLE LINER OPTION)**

**A. CAPACITY AT HWL (MAXIMUM OPERATING LEVEL)**

TOP AREA = 1.09 ac  
BOTTOM AREA = 0.48 ac  
MIDDLE AREA = 0.77 ac  
DEPTH = 8.5 ft  
VOLUME = 6.58 ac-ft

**B. CAPACITY AT NWL (NORMAL OPERATING LEVEL)**

TOP AREA = 0.82 ac  
BOTTOM AREA = 0.48 ac  
MIDDLE AREA = 0.65 ac  
DEPTH = 5.0 ft  
VOLUME = 3.24 ac-ft

**C. AUXILIARY CAPACITY**

= CAPACITY AT HWL - CAPACITY AT NWL  
= 6.58 - 3.24 = 3.34 ac-ft

NOTE: AUXILIARY CAPACITY (3.34 ac-ft) EXCEEDS THE NORMAL OPERATING CAPACITY (3.24 ac-ft) FOR EACH POND SUCH THAT THE ENTIRE CONTENTS OF EITHER POND CAN BE TRANSFERRED TO THE OTHER WHILE STILL MAINTAINING 1.0 ft OF FREEBOARD.

**EVAPORATION PONDS (TWO REQUIRED WITH SAME DIMENSIONS)  
VOLUME CALCULATIONS (USING PRISMOIDAL FORMULA)  
OPTION B (DOUBLE LINER OPTION)**

**A. CAPACITY AT HWL (MAXIMUM OPERATING LEVEL)**

TOP AREA = 0.94 ac  
BOTTOM AREA = 0.49 ac  
MIDDLE AREA = 0.70 ac  
DEPTH = 9.5 ft  
VOLUME = 6.71 ac-ft

**B. CAPACITY AT NWL (NORMAL OPERATING LEVEL)**

TOP AREA = 0.73 ac  
BOTTOM AREA = 0.49 ac  
MIDDLE AREA = 0.61 ac  
DEPTH = 5.4 ft  
VOLUME = 3.29 ac-ft

**C. AUXILIARY CAPACITY**

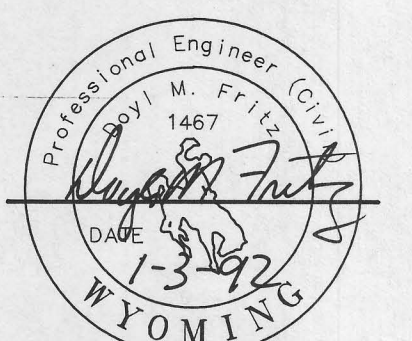
= CAPACITY AT HWL - CAPACITY AT NWL  
= 6.71 - 3.29 = 3.42 ac-ft

NOTE: AUXILIARY CAPACITY (3.42 ac-ft) EXCEEDS THE NORMAL OPERATING CAPACITY (3.29 ac-ft) FOR EACH POND SUCH THAT THE ENTIRE CONTENTS OF EITHER POND CAN BE TRANSFERRED TO THE OTHER WHILE STILL MAINTAINING 1.0 ft OF FREEBOARD.

**CERTIFICATE OF ENGINEER**

STATE OF WYOMING) SS  
COUNTY OF SHERIDAN)

I, Doyl M. Fritz, hereby certify that these drawings were prepared by myself or under my direct supervision based on topographic maps supplied by Pathfinder Mines Corporation and that they correctly represent the facilities described in the accompanying application which are designed to meet the requirements of the Wyoming Environmental Quality Act and its regulations.



SHEET 1 OF 5

**PATHFINDER MINES CORPORATION**

**LOCATION MAP AND  
PLAN VIEW,  
PATHFINDER NORTH BUTTE  
EVAPORATION PONDS**

REVISIONS		WMC ENGINEERING	
Date	By	A DIVISION OF WESTERN WATER CONSULTANTS, INC.	
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