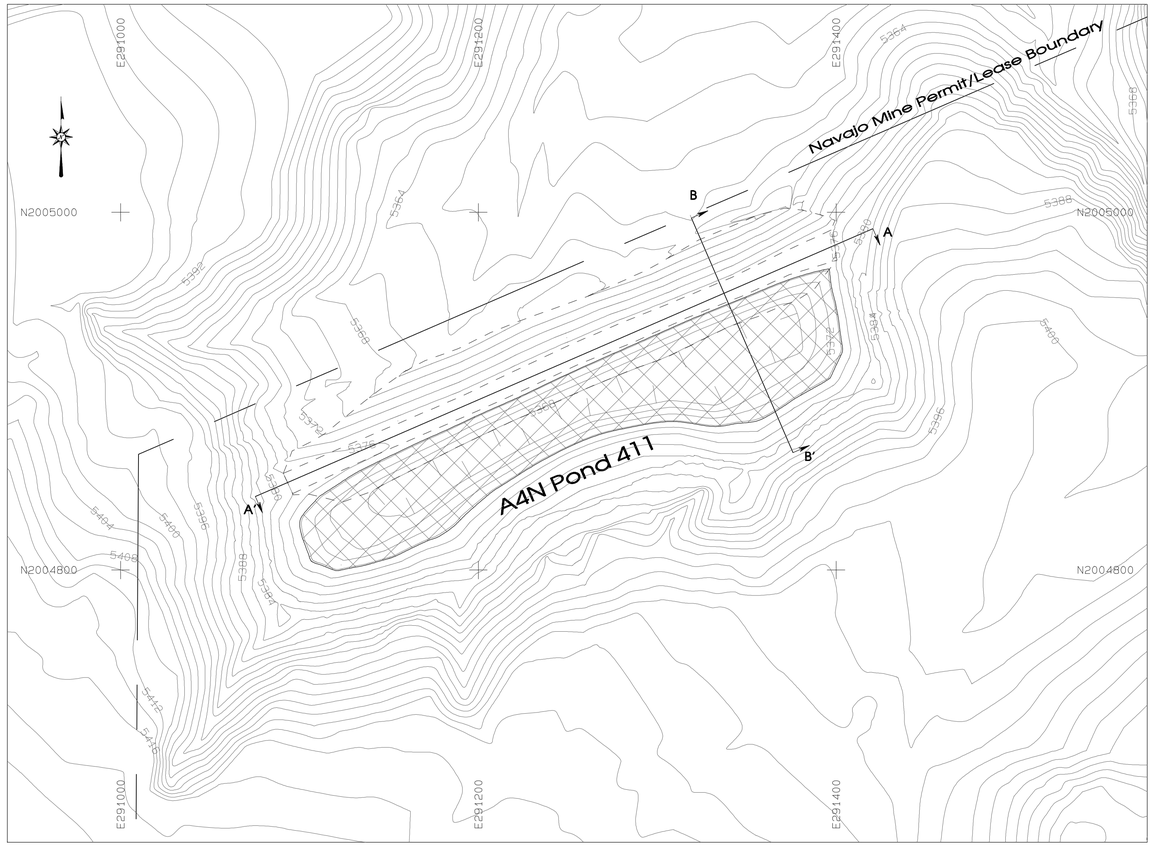
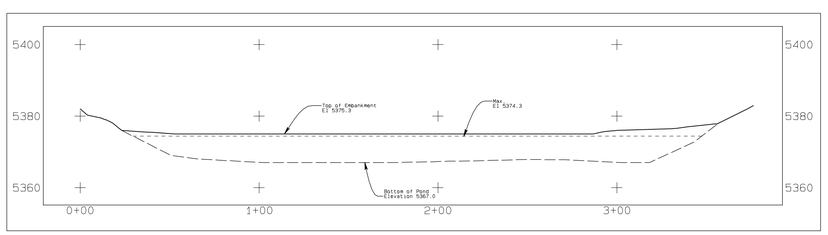
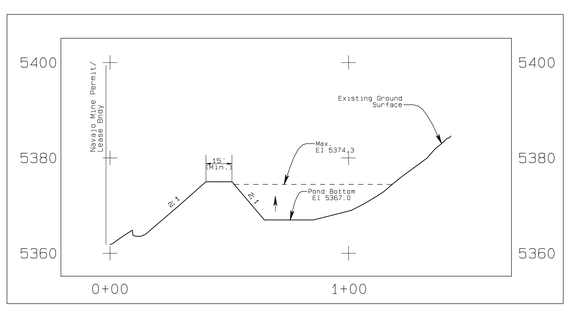


PLAN VIEW
1"=40'



CROSS SECTION A - A'
SCALE - H - 1"=40'
V - 1"=20'



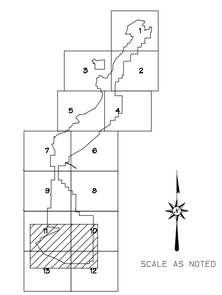
CROSS SECTION B - B'
SCALE - H - 1"=30'
V - 1"=15'

LEGEND

- ROAD
- WATERSHED
- BUILDING
- FENCE
- IRRIGATION LINE
- CULVERT
- DAM
- DRAINAGE
- RAILROAD
- TREES
- POWERLINE
- ×5338.5 SPOT ELEVATION
- 5300 INDEX CONTOUR
- 5298 INTERMEDIATE CONTOUR
- 218 5422.45
- L-30 LEASE CORNER
- PERMIT/LEASE BOUNDARY

NOTES

1. For hydrology and design information refer to Appendix 11-A4 in the approved PAP.
1. Refer to Exhibit 11-13F for watershed information and location of ponds.



SCALE AS NOTED

STAGE STORAGE DATA

ELEV feet	AREA acres	VOLUME ac-ft	CUM. VOLUME ac-ft
5367	0.05	0.0	0.00
5368	0.13	0.1	0.09
5369	0.18	0.2	0.25
5370	0.21	0.2	0.44
5371	0.25	0.2	0.67
5372	0.28	0.3	0.93
5373	0.32	0.3	1.23
5374	0.35	0.3	1.57
5375	0.39	0.4	1.94
5376	0.43	0.4	2.35

Pond Crest/Spillway Elevation	5375.3
As-Built Volume @ Crest (Ac-Ft)	2.1
Design Max. Water Elevation	5374.3
Capicity @ Max. Water Elevation	1.7
Required Volume(100 yr.6 hr.) (Ac-Ft)	1.2

CERTIFICATION STATEMENT

I, Ron C. VAN VALKENBURG, hereby certify that this structure has been constructued in accordance with the approved design plans and that the information shown is complete and accurate to the best of my knowledge, except as noted below:

1. Only minor elevation differences for pond bottom and embankment crest.

Ron C. VAN VALKENBURG
NEW MEXICO
9263
LICENSED PROFESSIONAL ENGINEER

#	REVISION	DATE
1	PREPARED FOR SUBMITTAL TO DGM	1-28-10
2	REVISED PER DGM REVIEW COMMENTS AND SUBMITTED TO DGM FOR REVIEW AND APPROVAL	1-28-10
3	SUBMITTED TO DGM FOR REVIEW AND APPROVAL	1-28-10
4		

PROJECT MANAGER: FG
ENGR. of RECORD: RCV
REG. NO: 9263
SRVYR of RECORD:
REG. NO:

bhpbilliton
BHP NAVAJO COAL CO.
NAVAJO MINE
PO Box 1171 FRUITLAND, NM 87416 PHONE 505-598-5000FAX 505-598-5951

ACCOUNT:
DATE: AUGUST 31, 2009
DESIGNED BY: RCV
DRAWN BY: RY
CHECKED BY: RCV
APPROVED BY: RCV

PLAN, PROFILE AND SECTIONS

EXHIBIT 11-161
AREA 4 NORTH
POND 411
As-Built

DRAWING

SHEET 1
OF 1

G:\Gis\Permits\Ch 11\Exh 11-161_A4N Pd 411\DGM Subm-12011\Exh 11-161_A4N Pond-411_As-Built.pro
Wed Jan 20, 2011 / 12:37:44