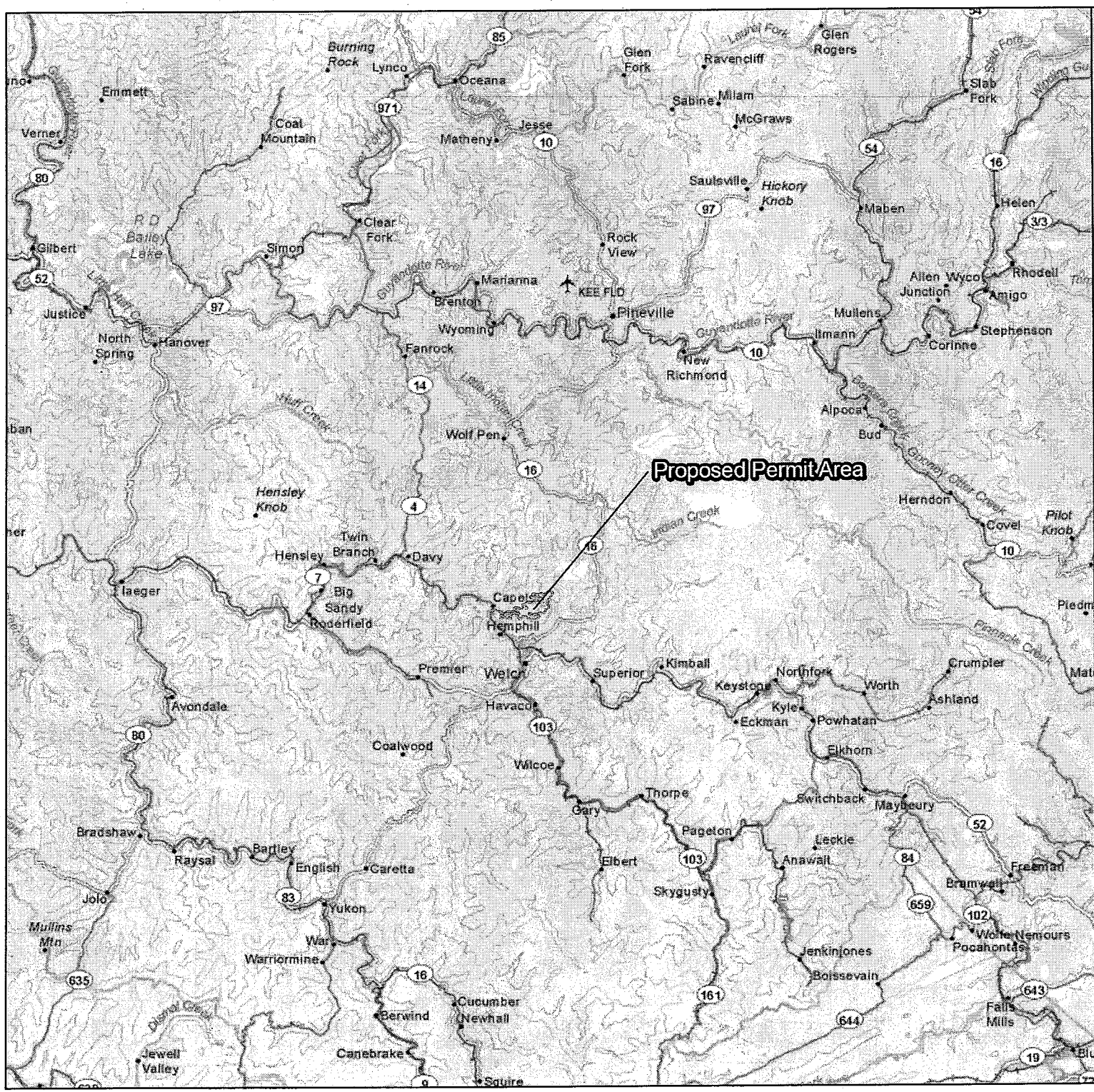
The following document is not readable via Optical Character Recognition. For more information or if you require the document to be read aloud please call: 304-399-5353



Southern Minerals, Inc.

Permit No. S401809

Upper Shannon Branch

General Vicinity Map

Legend

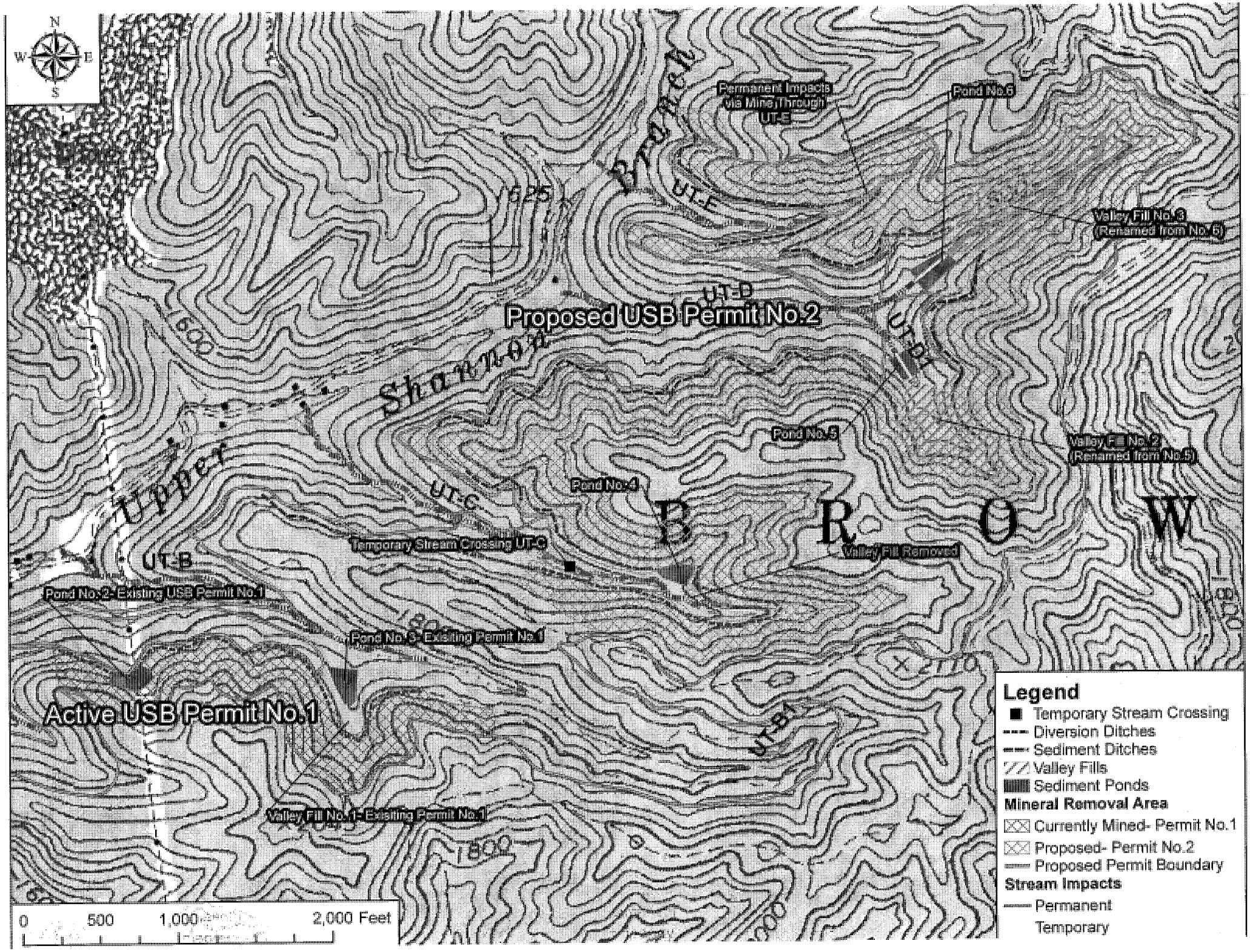
— Proposed Permit Boundary

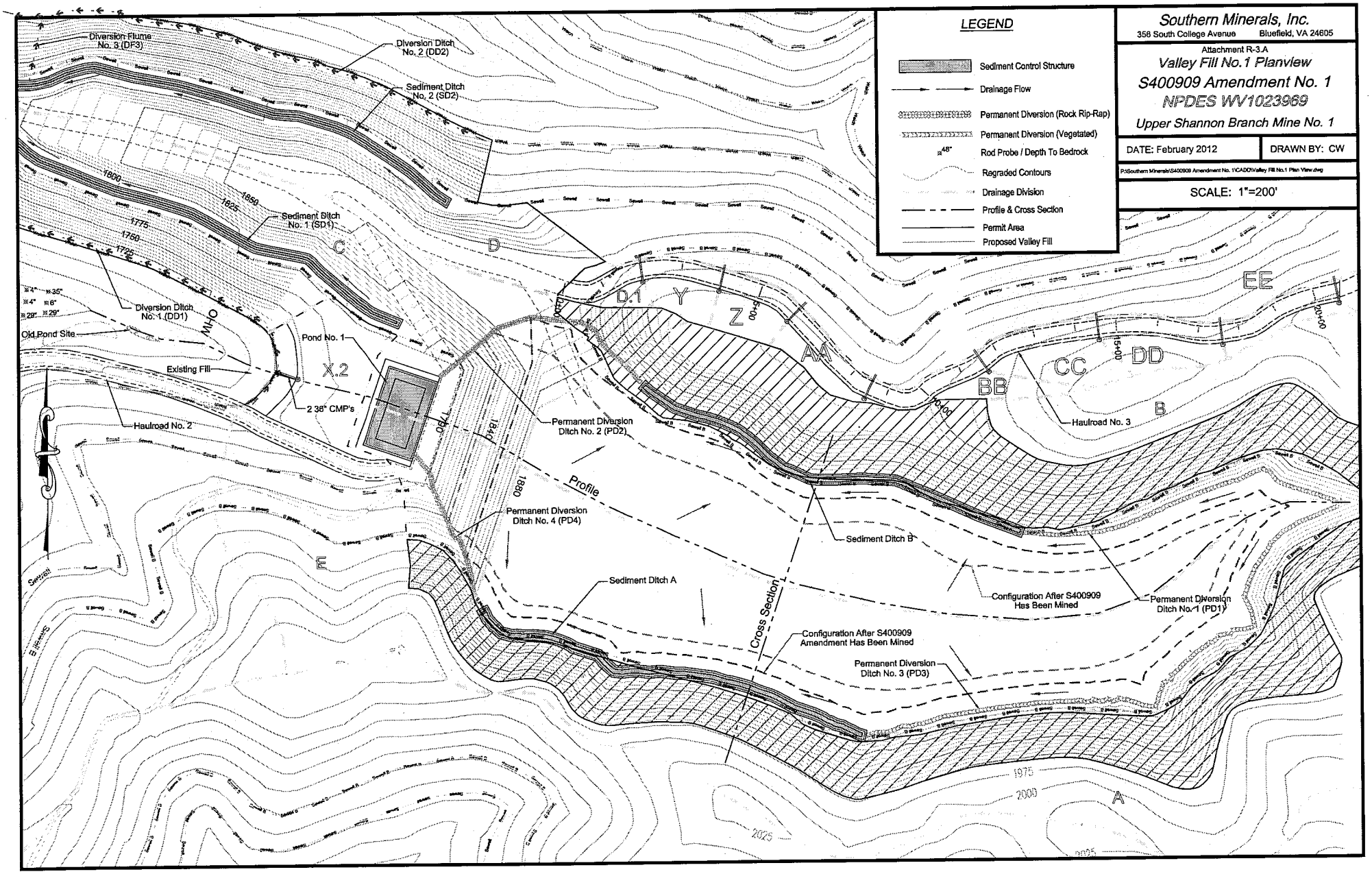
Projection: UTM
Datum: Nad 83
Zone: 17

State: West Virginia
County: McDowell
Quad: Welch

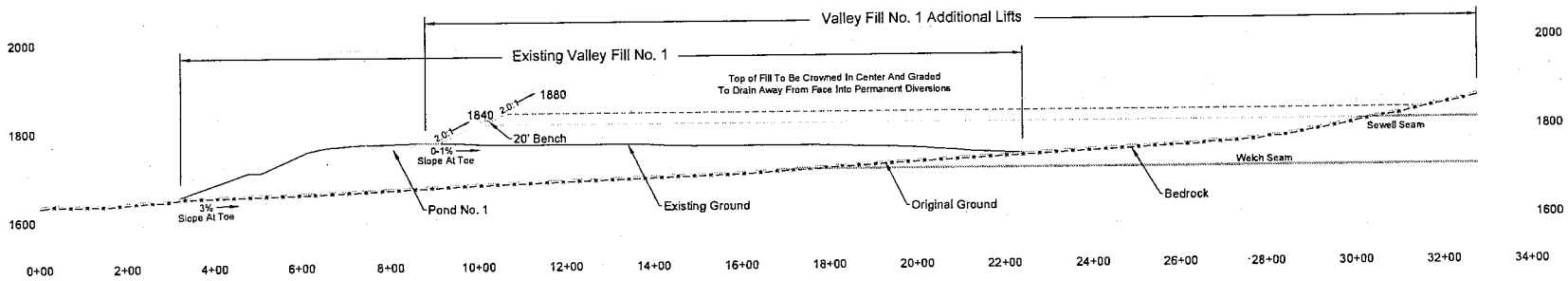
Prepared for:
Southern Minerals, Inc.
416 Tanglewood Dr.
Princeton, WV 24740

Prepared by:
Jackson Environmental
1586 Boonesborough Road
Richmond, Kentucky 40475


N
W
E
S
Permanent Impacts via Mineral through UT-E
Pond No.6
Valley Fill No.3 (Renamed from No.5)
GPS
UT-E
UT-D
Proposed USB Permit No.2
UT-D1
Shamrock
Pond No.3
Valley Fill No.2 (Renamed from No.5)
Upper
Pond No.4
UT-C
B
R
O
W
Temporary Stream Crossing UT-C
Valley Fill Removed
UT-B
Pond No.2- Existing USB Permit No.1
Pond No.3- Existing Permit No.1
Active USB Permit No.1
UT-A
Valley Fill No.1- Existing Permit No.1
1500
0
500
1,000
2,000 Feet
Legend
Temporary Stream Crossing
Diversion Ditches
Sediment Ditches
Valley Fills
Sediment Ponds
Mineral Removal Area
Currently Mined- Permit No.1
Proposed- Permit No.2
Proposed Permit Boundary
Stream Impacts
Permanent
Temporary



LEGEND
Sediment Control Structure
Drainage Flow
Permanent Diversion (Rock Rip-Rap)
Permanent Diversion (Vegetated)
48"
Rod Probe / Depth To Bedrock
Regraded Contours
Drainage Division
Profile & Cross Section
Permit Area
Proposed Valley Fill
Southern Minerals, Inc.
358 South College Avenue Bluefield, VA 24605
Attachment R-3.A
Valley Fill No.1 Planview
S400909 Amendment No. 1
NPDES WV1023969
Upper Shannon Branch Mine No. 1
DATE: February 2012
DRAWN BY: CW
P:\Southern Minerals\S400909 Amendment No. 1\CADD\Valley Fill No.1 Plan View.dwg
SCALE: 1"=200'
Diversion Flume No. 3 (DF3)
Diversion Ditch No. 2 (DD2)
Sediment Ditch No. 2 (SD2)
Sediment Ditch No. 1 (SD1)
Diversion Ditch No. 1 (DD1)
Old Pond Site
Pond No. 1
Existing Fill
2 36" CMP's
Haulroad No. 2
Haulroad No. 3
Permanent Diversion Ditch No. 2 (PD2)
Permanent Diversion Ditch No. 4 (PD4)
Sediment Ditch A
Sediment Ditch B
Configuration After S400909 Has Been Mined
Permanent Diversion Ditch No. 1 (PD1)
Configuration After S400909 Amendment Has Been Mined
Permanent Diversion Ditch No. 3 (PD3)
Profile
Cross Section
OHW
Sewell
1800
1825
1850
1775
1750
1725
1780
1840
1880
1975
2000
2025
C
D
D.1
Y
Z
AA
BB
CC
DD
EE
B
E
A
X.2



LEGEND

- *Original Ground*
- *Existing Ground*
- *Bedrock*
- *Proposed Additional Lift*
- *Coal Seam*
- *Configuration After S400909 Amendment Has Been Mined*
- *Configuration After S400909 Has Been Mined*

Southern Minerals, Inc.
356 South College Avenue
Bluefield, VA 24605

Attachment R-3.A

Valley Fill No. 1Profile

S400909 Amendment No. 1

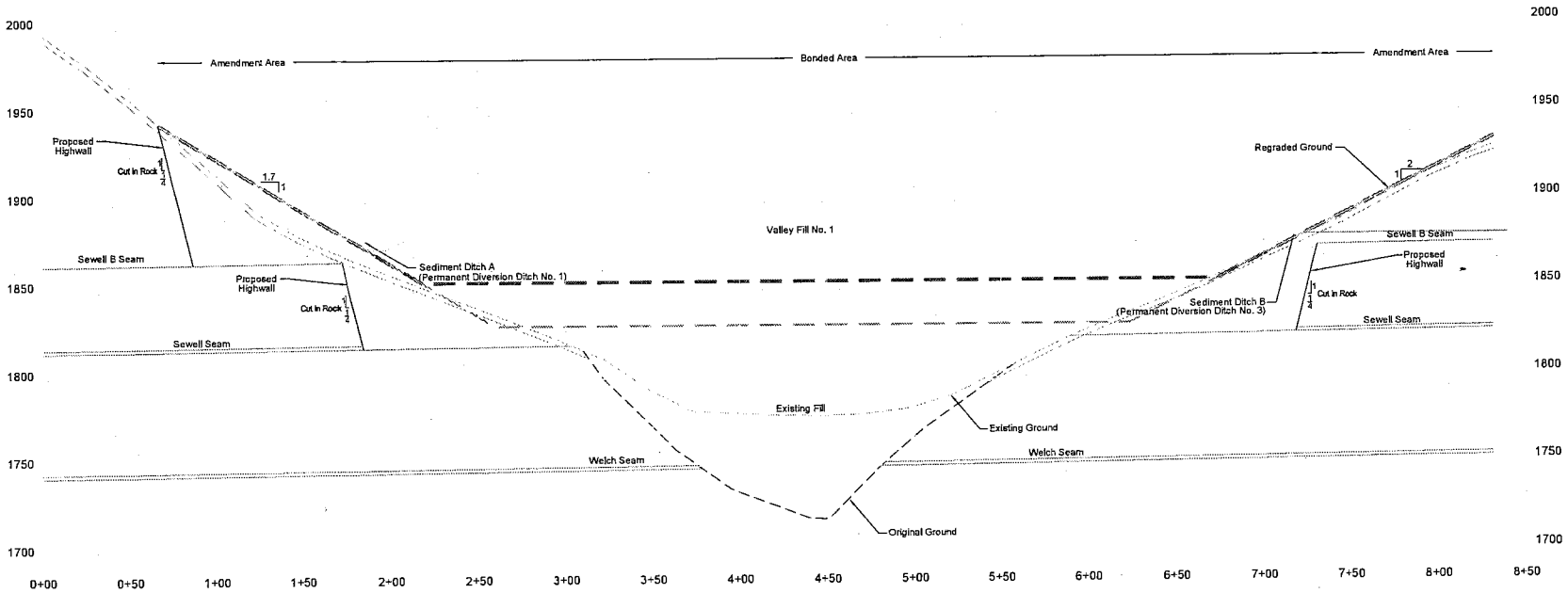
Upper Shannon Branch Mine No. 1

DATE: February 2012	DRAWN BY: CW

P:\Southern Minerals\S400909 Amendment No. 1\CADD\Valley Fill Profile & Cross Section.dwg

SCALE: 1"=200' (100 0 200 400)

SHEET 1 OF 1



NOTES:
1) There are no known materials requiring special handling.

LEGEND

- *Existing Ground*
- *Coal Seam*
- *Topsoil*
- *During Mining Ground*
- *Regraded Ground (Final Configuration)*
- *Configuration After S400909 Amendment Has Been Mined*
- *Configuration After S400909 Has Been Mined*

Map Prepared By:

TRUE LINE, INC.
P.O. BOX 65
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Southern Minerals, Inc.

356 South College Avenue
Bluefield, VA 24605

Attachment R-3.A

Valley Fill No. 1 Cross Section

S400909 Amendment No. 1

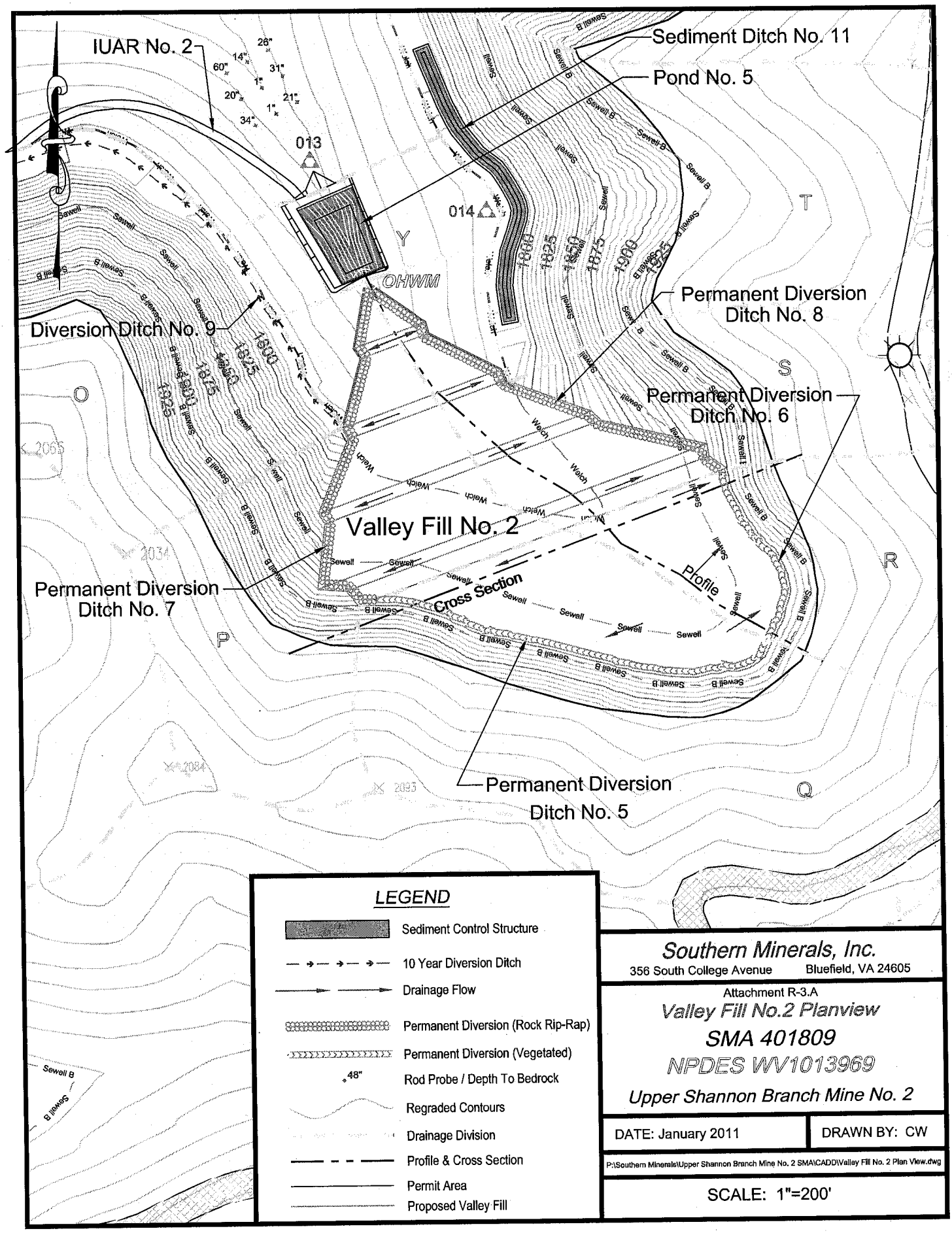
Upper Shannon Branch Mine No. 1

DATE: February 2012	DRAWN BY: CW

P:\Southern Minerals\S400909 Amendment No. 1\CADD\Valley Fill Profile & Cross Section.dwg

SCALE: 1"=50' (25 0 50 100)

SHEET 3 OF 3



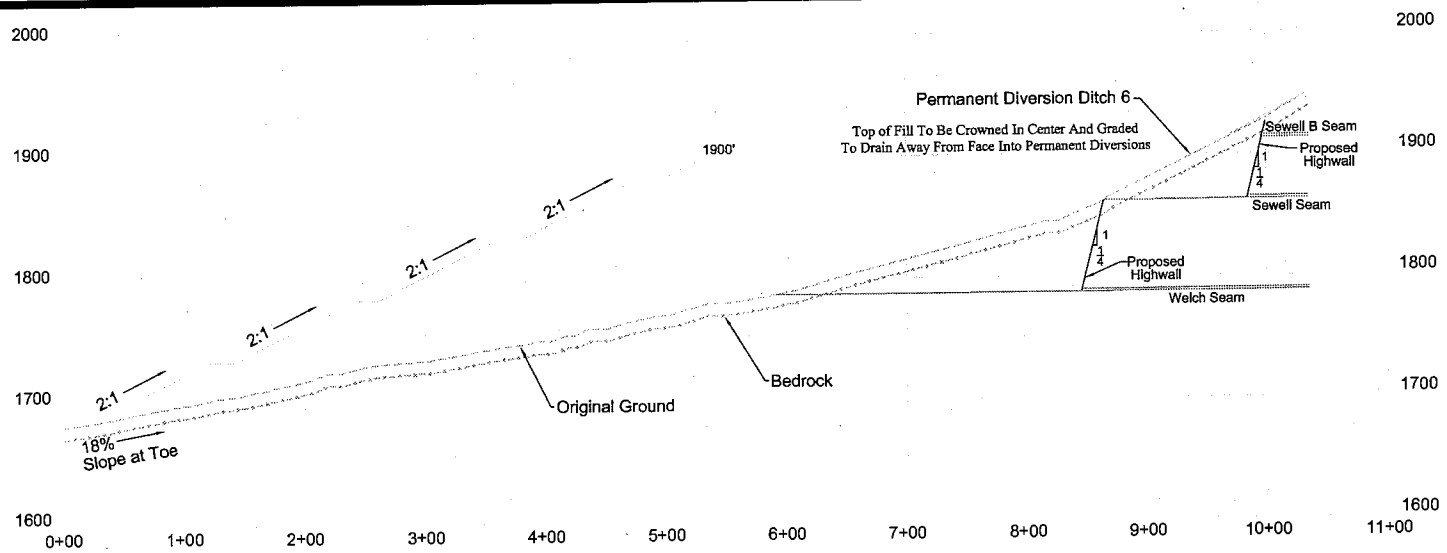
Southern Minerals, Inc.
356 South College Avenue Bluefield, VA 24605

Attachment R-3.A
Valley Fill No.2 Planview
SMA 401809
NPDES WV1013969
Upper Shannon Branch Mine No. 2

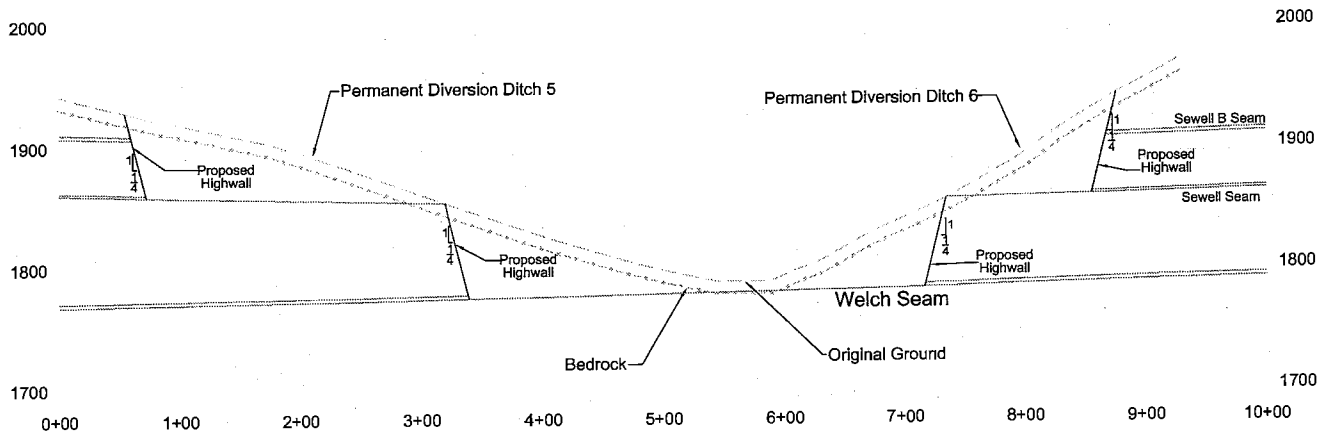
DATE: January 2011 | DRAWN BY: CW

P:\Southern Minerals\Upper Shannon Branch Mine No. 2 SMA\CADD\Valley Fill No. 2 Plan View.dwg

SCALE: 1"=200'



Profile



Cross Section

LEGEND

- Original Ground
- Bedrock
- Proposed Ground
- Coal Seam

Southern Minerals, Inc.

356 South College Avenue
Bluefield, VA 24605

Attachment R-3.A

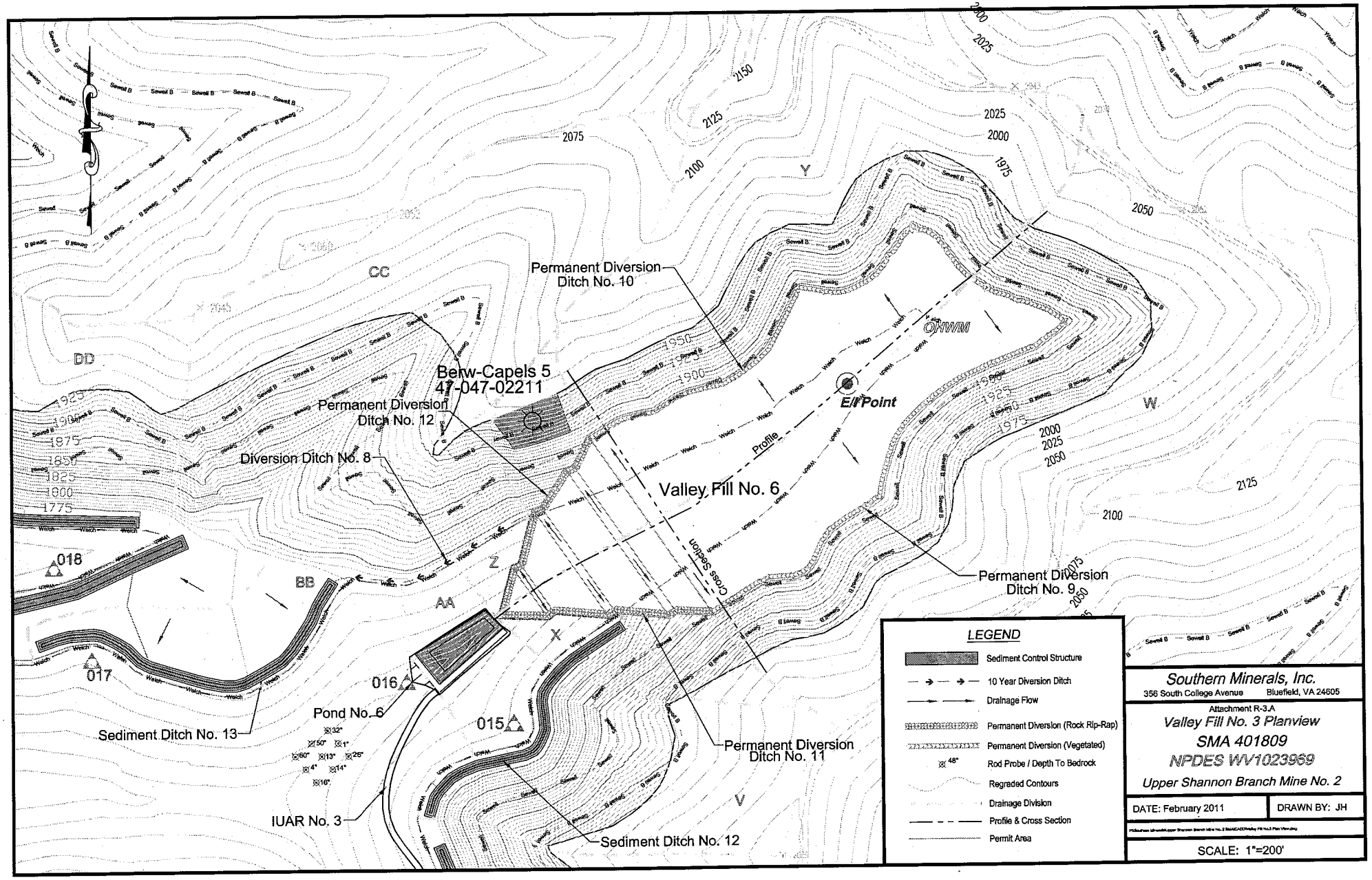
Upper Shannon Branch Mine No. 2
Valley Fill No. 2 Profile & Cross Section
SMA 401809
NPDES WV1023969

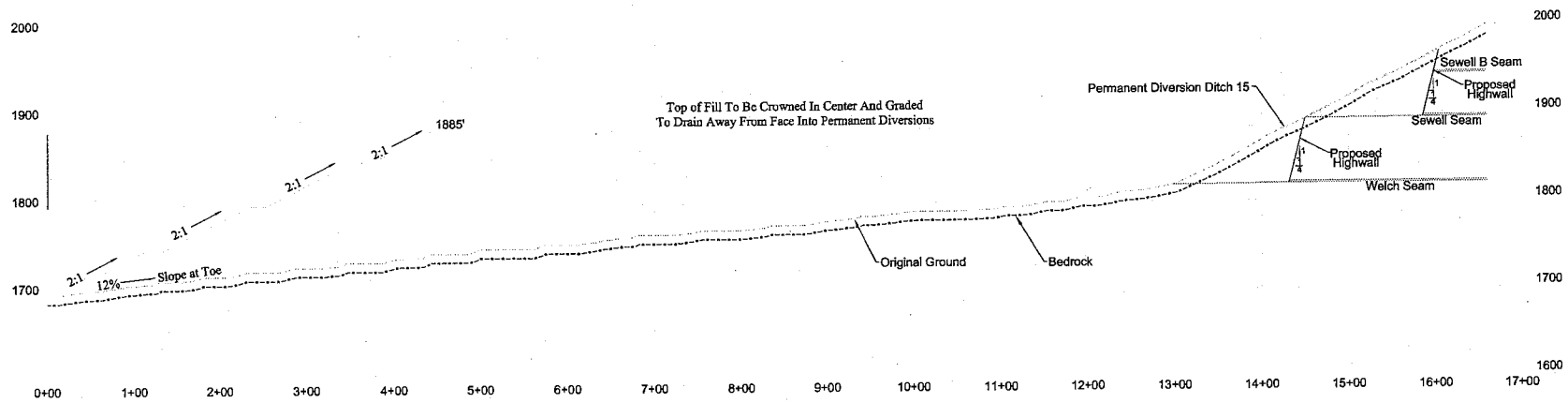
DATE: February 2011	DRAWN BY: JH

P:\Southern Minerals\Upper Shannon Branch Mine No. 2 SMA\CADD\Valley Fill No. 2 Cross Section And Profile.dwg

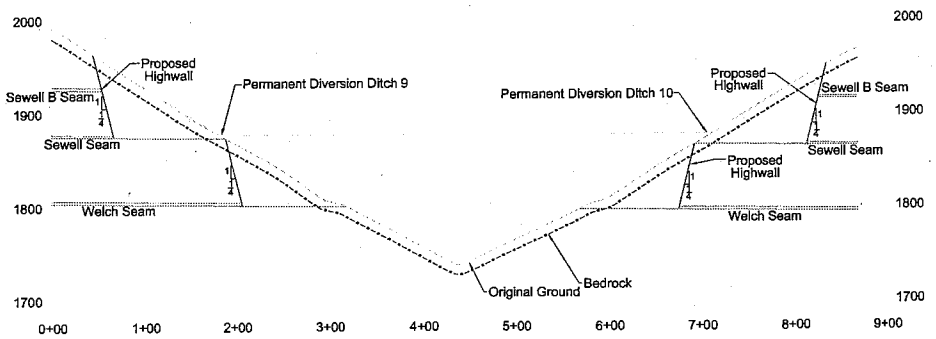
SCALE: 1"=100' (0, 50, 100, 200)

SHEET 1 OF 1


Permanent Diversion Ditch No. 10
Berw-Capels 5
47-047-02211
Permanent Diversion Ditch No. 12
Diversion Ditch No. 8
Valley Fill No. 6
Profile
Cross Section
E/F Point
OHWM
Permanent Diversion Ditch No. 9
Permanent Diversion Ditch No. 11
Sediment Ditch No. 13
Pond No. 6
IUAR No. 3
Sediment Ditch No. 12
018
017
016
015
CC
DD
BB
AA
Z
Y
X
W
V
LEGEND
Sediment Control Structure
10 Year Diversion Ditch
Drainage Flow
Permanent Diversion (Rock Rip-Rap)
Permanent Diversion (Vegetated)
Rod Probe / Depth To Bedrock
Regraded Contours
Drainage Division
Profile & Cross Section
Permit Area
Southern Minerals, Inc.
356 South College Avenue Bluefield, VA 24605
Attachment R-3.A
Valley Fill No. 3 Planview
SMA 401809
NPDES WV1023969
Upper Shannon Branch Mine No. 2
DATE: February 2011
DRAWN BY: JH
SCALE: 1"=200'



Profile



Cross Section

LEGEND

- Original Ground
- Bedrock
- Proposed Ground
- Coal Seam

Southern Minerals, Inc.
356 South College Avenue
Bluefield, VA 24605

Attachment R-3.A

Upper Shannon Branch Mine No. 2
Valley Fill No. 3 Profile & Cross Section
SMA 401809
NPDES WV1023969

DATE: February 2011	DRAWN BY: JH

P:\Southern Minerals\Upper Shannon Branch Mine No. 2 SMA\CAD\Valley Fill No. 3 Cross Section And Profile.dwg

SCALE: 1"=100' (50 0 100 200)

SHEET 1 OF 1

Top of Water = 12,156 Sq. Ft. (Elev. 1688.0)
Bottom of Pond = 8,816 Sq. Ft. (Elev. 1681.0)
Depth of Water = 7.0 Ft.
Side Slopes = 2:1 & 1:1
Required Volume = 63,598 Cu. Ft. / 1.460 Ac.-Ft.
Available Volume = 73,402 Cu. Ft. / 1.685 Ac.-Ft.

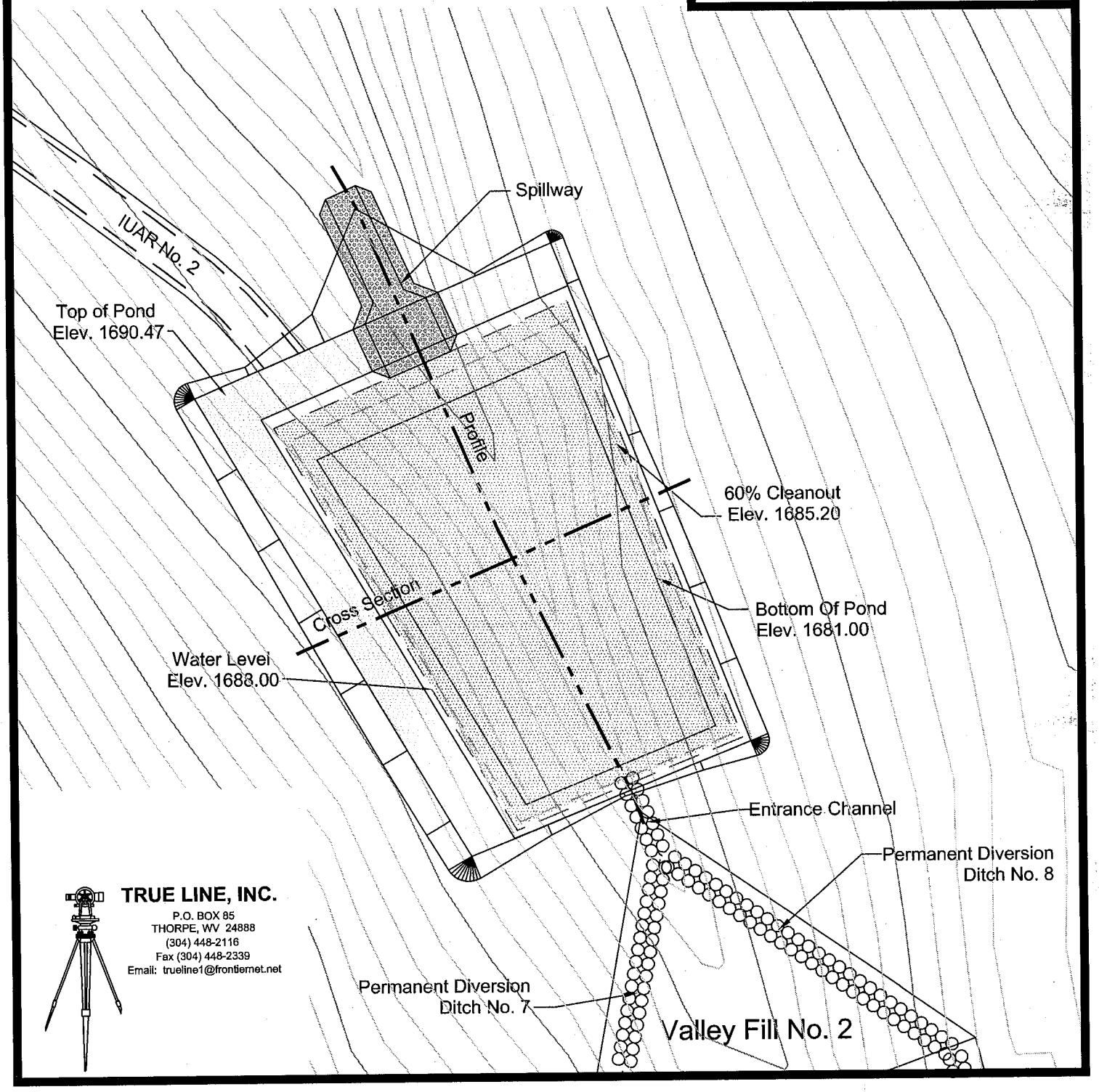
Southern Minerals, Inc.
356 South College Avenue Bluefield, VA 24605

Attachment P-7
Pond No. 5 Planview
Upper Shannon Branch Mine No. 2
SMA 401809
NPDES WV1013969

DATE: February 2011	DRAWN BY: JH

P:\Southern Minerals\Upper Shannon Branch Mine No. 2 SMA\CADD\Pond 5.dwg

SCALE: 1"=40'



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Legend

- Top of Water - Elev. 1688.00
- Bottom of Pond - Elev. 1682.00
- 60% Cleanout - Elev. 1685.60
- Existing ground

Southern Minerals, Inc.
356 South College Avenue Bluefield, VA 24605

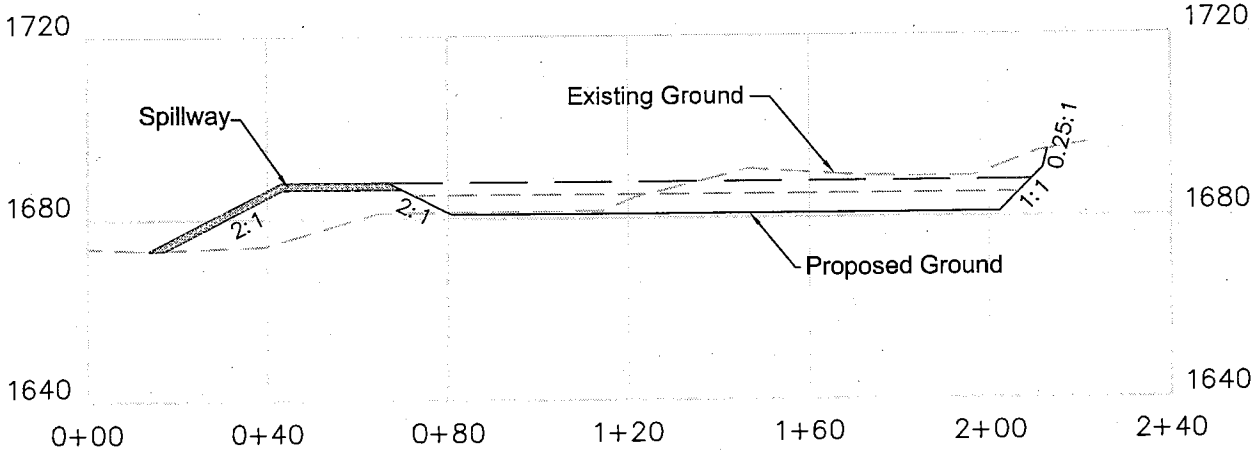
Attachment P-7
Pond No. 5 Cross Sections
Upper Shannon Branch Mine No. 2
SMA 401809
NPDES WV1013969

DATE: February 2011 | DRAWN BY: JH

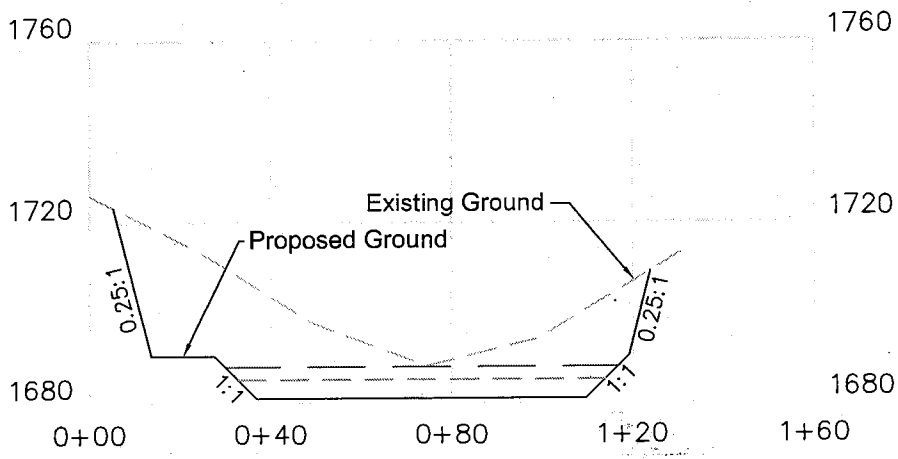
P:\Southern Minerals\Upper Shannon Branch Mine No. 2 SMA\CADD\Pond 5.dwg

SCALE: 1"=40'

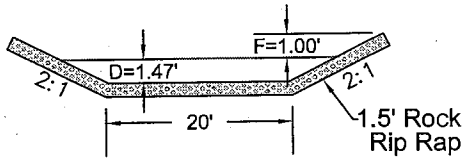
Profile



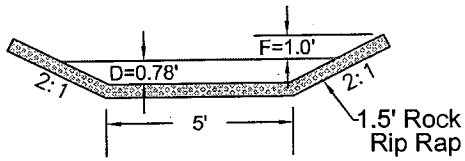
Cross Section



Control Section - NTS



Chute Section - NTS



Top of Water = 14,331 Sq. Ft. (Elev. 1698.0)
Bottom of Pond = 7,227 Sq. Ft. (Elev. 1685.0)
Depth of Water = 13.0 Ft.
Side Slopes = 2:1 & 1:1
Required Volume = 138,259.44 Cu. Ft. / 3.174 Ac.-Ft.
Available Volume = 140,127 Cu. Ft. / 3.217 Ac.-Ft.

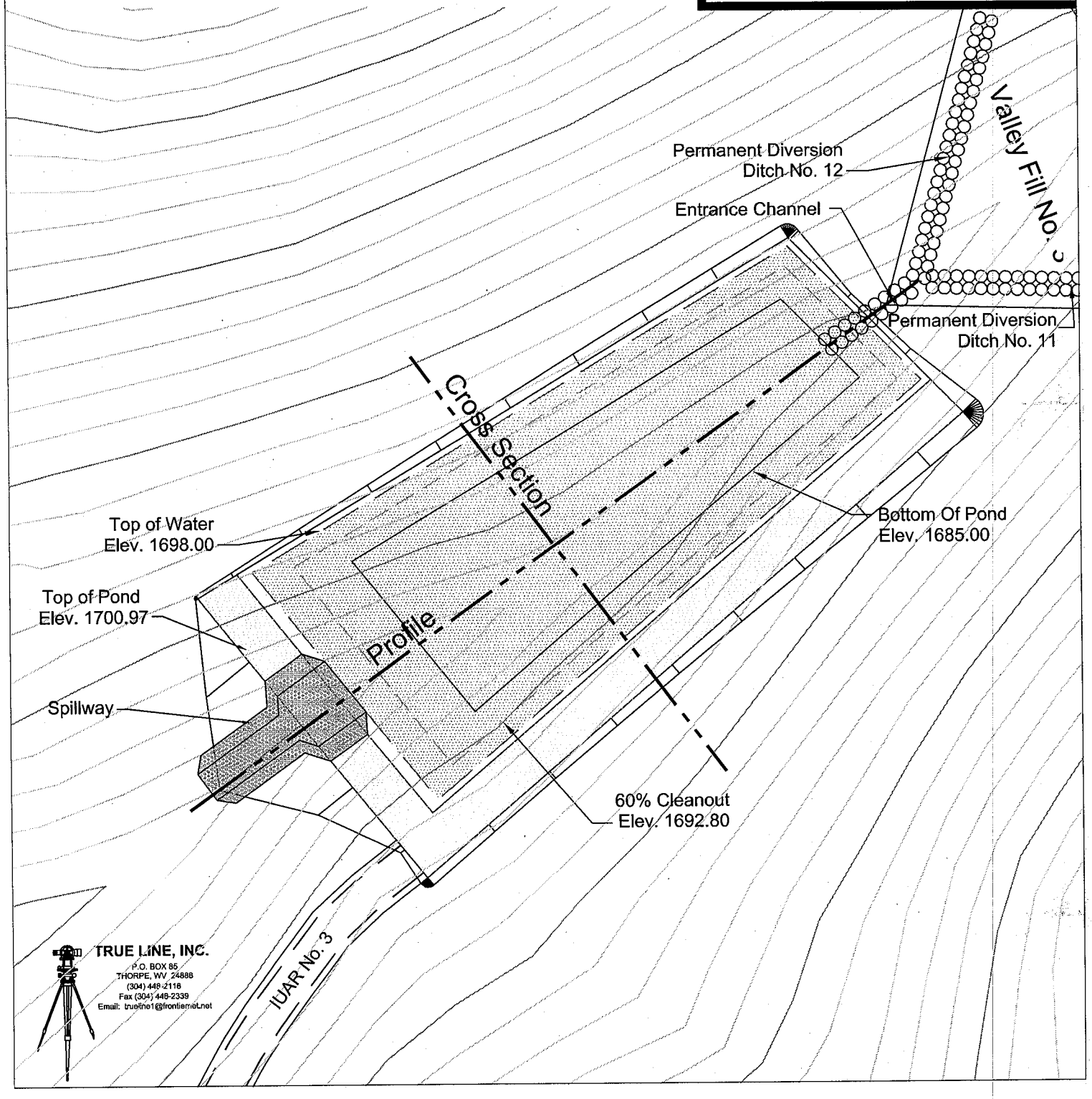
Southern Minerals, Inc.
356 South College Avenue Bluefield, VA 24605

Attachment P-7
Pond No. 6 Planview
Upper Shannon Branch Mine No: 2
SMA 401809
NPDES WV1013969

DATE: February 2011 | DRAWN BY: JH

P:\Southern Minerals\Upper Shannon Branch Mine No. 2 SMA\CADD\Pond 6.dwg

SCALE: 1"=40'



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Legend

- Top of Water - Elev. 1698.00
- Bottom of Pond - Elev. 1685.00
- 60% Cleanout - Elev. 1692.80
- Existing ground

Southern Minerals, Inc.
356 South College Avenue Bluefield, VA 24605

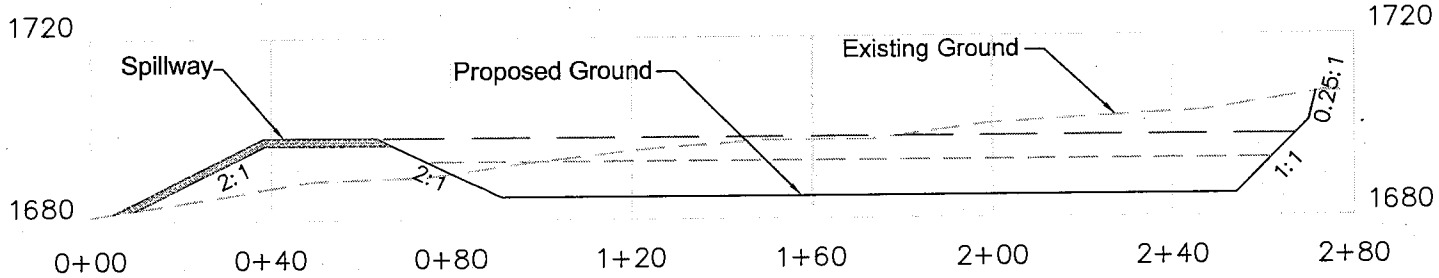
Attachment P-7
Pond No. 6 Cross Sections
Upper Shannon Branch Mine No. 2
SMA 401809
NPDES WV1013969

DATE: February 2011 | DRAWN BY: JH

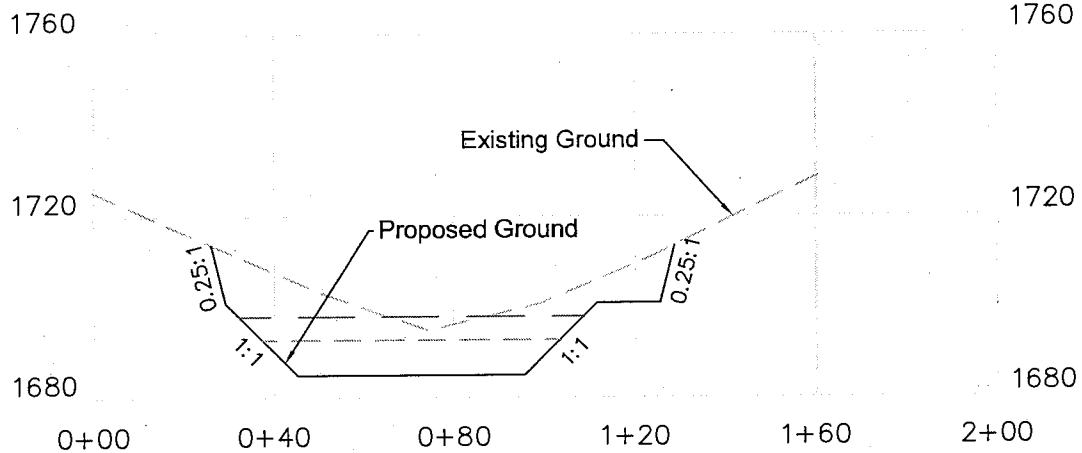
P:\Southern Minerals\Upper Shannon Branch Mine No. 2 SMA\CADD\Pond 6.dwg

SCALE: 1"=40'

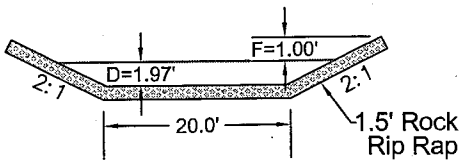
Profile



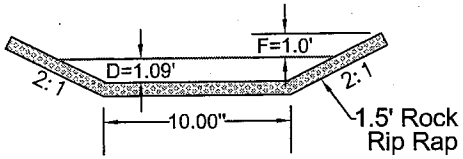
Cross Section



Control Section - NTS



Chute Section - NTS



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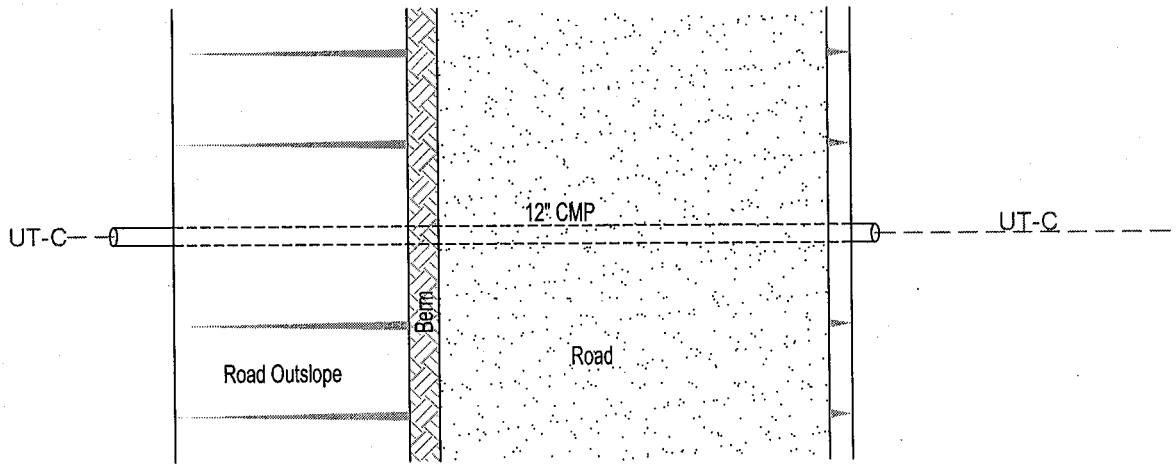
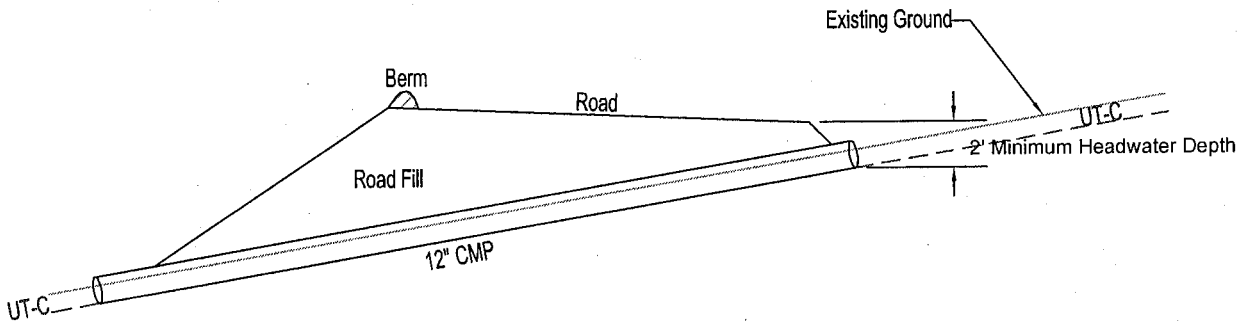
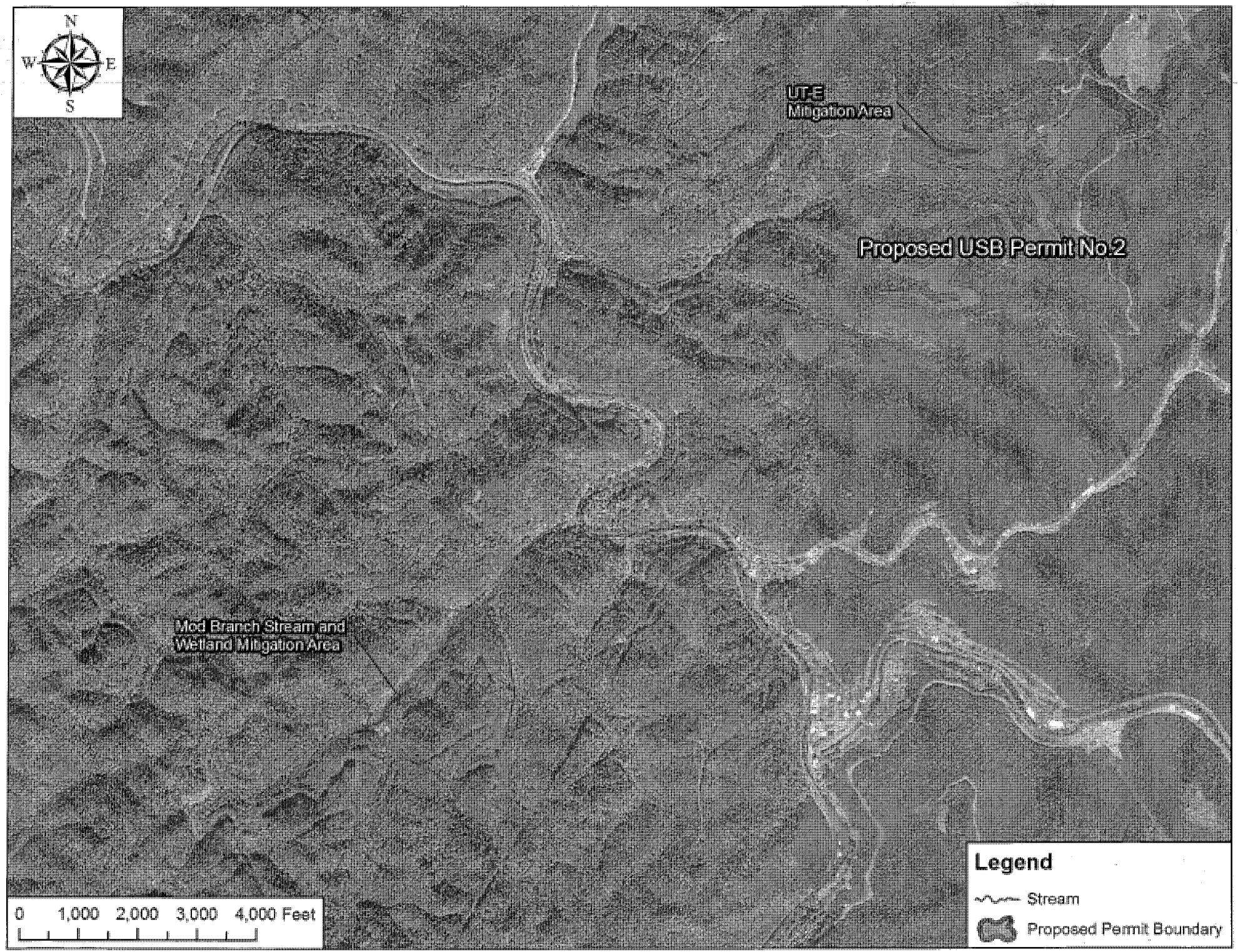
Email: trueline1@frontiernet.net

Temporary Road Crossing UT-C





Southern Minerals, Inc.
Upper Shannon Branch Mine No. 2


N
W
E
S
UT-E
Mitigation Area
Proposed USB Permit No.2
Mod Branch Stream and
Wetland Mitigation Area
0 1,000 2,000 3,000 4,000 Feet
Legend
Stream
Proposed Permit Boundary