

ATTACHMENT II-F
GROUNDWATER HYDROLOGY

The following descriptions of regional groundwater and aquifer characteristics are based on information contained in the 'Hydrology Reports' for Areas 21, 22, 23, & 24 by the U.S. Geological Survey and also information contained in various hydrogeological evaluations submitted to, and approved by, the Alabama Surface Mining Commission.

Groundwater in the Warrior Basin occurs chiefly in openings along fractures and bedding planes within Pottsville Formation strata. The most productive water-bearing openings generally occur in sandstone beds within 250 to 350 ft. of the surface. Well yields in the Pottsville depend on the number and size of water-bearing openings present. The number and size of the openings normally varies from one point to another depending upon the degree of fracturing present in the rocks.

Regionally, the primary source of recharge to groundwater is rainfall which infiltrates through the overlying soils, past the root zone of plants, and into strata such as sandstone where it will sit (perch) upon an interval, such as shale, which limits the downward progress of the groundwater. Groundwater may also encounter fault and fracture zones, which will transmit the

groundwater past the bedding planes of shale, or other aquitards, to deeper aquifers. Where aquifers are overlain by less permeable strata, these aquifer may become confined due to the pressure exerted by groundwater in up-dip strata. Groundwater movement in the Warrior Basin is generally from areas of higher elevation, along bedding planes, toward stream channels. Where the static groundwater level intersects the surface, seeps or springs may occur. Where the static groundwater level intersects stream channels, groundwater discharges into the stream and contributes to surface runoff as baseflow.

Groundwater occurring above and below the Black Creek Coal Seam of the Black Creek Coal Group within the proposed Warrior Mine exists in Pottsville Formation strata.

As mentioned in Part II-E, Groundwater Monitoring Sites W282WMW1 and W282WMW2A were drilled by personnel of Walker Drilling Service in January of 2007 utilizing a Gardner-Denver GD1000 air rotary drill. All monitoring wells were cased by personnel of Walker Drilling Service as shown on the attached 'Casing Specifications'. Data from these wells will be utilized to determine the characteristics of groundwater located within Pottsville Formation strata above, within, and below the Black Creek Coal Group at this site.

As shown on the attached 'Casing Specifications', Groundwater Monitoring

Sites W282WMW1 and W282WMW2A describes the characteristics of groundwater associated with strata above, within, and below the Black Creek Coal Group (which mimic local domestic wells that extend into all these different aquifers).

The proposed mine site is located on an isolated ridge, or plateau, with streams which surround it on the southern, western, and northern sides. Relief within the proposed permit boundary from the top of this ridge to the surrounding streams may reach as much as 200 feet. In addition, this site has an existing highwall on its western side and the site has, to a limited extent, been underground mined as well. All these factors contribute to the reality that the aquifers located above, and somewhat below the lowest target coal seam at this site are very limited with respect to lateral (or aerial) extent of recharge area. In addition, a significant percentage of the strata above and below the lowest target coal seam consists of either shale, or sandy shale with some sandstone interbeds. These factors indicate that the quantity of groundwater for any one aquifer within the proposed permit boundary is not enough to reliably supply a local domestic well (or other legitimate groundwater use). Consequently, the groundwater monitoring sites drilled and cased for baseline information at this proposed mine site are similar to any other local well that would, out of necessity, rely on the contribution from several small aquifers to supply their groundwater.

As shown on the Mine Site Location Map, and on the attached Casing Specifications, Groundwater Monitoring Sites W282WMW1 and W282WMW2A are located more than 1/4 of a mile apart and an elevation difference of over 100 feet so that changes in groundwater conditions within the proposed permit area could be observed.

Based on topographic and lithologic information, water level records from baseline monitoring, and the small recharge area discussed above, these small water-holding intervals above and below the target coal seams at the proposed Warrior Mine should be classified as very small, perched water table aquifers. Recharge into the uppermost water-holding interval is largely from the surface by direct infiltration resulting from precipitation. Based upon on-site lithologic information, infiltration into the uppermost water-holding intervals (the interval exposed to the surface at that elevation) at this site varies widely, and is also dependent upon other factors such as slope and landuse. Due to the relief described above, and the steep out-slopes around the perimeter of this site (as shown on the Mine Site Location Map), recharge by direct infiltration into the small water holding intervals (which underlie the uppermost water-holding interval) should be very limited. This observation also relies upon the fact that (based upon on-site lithologic information) these intervals are not very thick, and are separated by other intervals composed of shale or sandy shale. Infiltration into these underlying water holding intervals from overlying aquifers may also

be very limited (in the absence of faults or fracture zones) due to the shale intervals discussed above. In addition, existing underground mining at the site (and the inherent subsidence experienced as a result of the mining) may have locally fractured overlying shale intervals (upon which the groundwater in the water holding intervals sit) and have partially dewatered these intervals. Based on all the above information, none of the above described intervals would be considered a reliable source of domestic groundwater based solely on quantity.

Groundwater associated with the coal seams within and adjacent to the proposed permit are limited in capacity due to the thinness of the intervals, and these intervals are of limited aerial extent due to local topography. The coal seam intervals in this area would not be considered a reliable source of domestic groundwater from a quantity standpoint and the elimination of these intervals during mining would not measurably affect the quantity of local groundwater resources.

All intervals discussed above contribute (somewhat) to the base flow of the adjacent receiving streams.

Personnel from the PERC Engineering Laboratory have collected 12 samples from Groundwater Monitoring Sites W282WMW1 and W282WMW2A between the dates 10-09-2008 and 08-31-2010. Samples were taken with either a

hand bailer or a submersible pump after development. Water level is measured prior to development. Practices employed by PERC Engineering concerning the volume of groundwater extracted at groundwater monitoring sites prior to sampling is outlined as follows: Where recharge of groundwater is sufficient, three well volumes of groundwater (measured from the static depth) are pumped prior to sampling so the sample obtained is from recharge. Where recharge is slow, and three well volumes cannot be obtained within the monitoring cycle (usually monthly), only one well volume will be pumped. The well will then be allowed to recharge and a sample will be obtained after a volume equal to the volume of the pump line has been discharged. In infrequent instances where recharge is very limited, and the volume of water in the well is too small to be pumped to the surface, a 'bottom sampler' is employed to bail as much water as possible from the well. The well will then be allowed to recharge and the bottom sampler will again be used to obtain a sample when ample groundwater is present to be collected. Depth to water, and pH, are measured in the field, and the sample is split into two separate containers: a 473 ml plastic bottle is acidified and utilized for metals analysis, and a one quart plastic bottle is utilized for all other analysis. Both are stored in an ice chest for transport to the PERC Engineering Laboratory.

All well samples were taken to the PERC Engineering Laboratory are analyzed according to ASTM specifications. Parameters tested include pH, iron,

manganese, conductivity, sulfates, acidity, and alkalinity. Not all parameters were analyzed on all occasions. See attached results of monitoring well analysis. Averages for selected parameters from groundwater samples taken at monitoring wells measuring chemical quality in groundwater associated with strata above, within, and below the Black Creek Coal Group are shown below:

Monitoring Site:_____	pH* (S.U.):	FeT (mg/l):	SpC (umhos):	SO4 (mg/l):
W282WMW1	6.37	4.16	174	14.33
W282WMW2A	6.28	15.58	108	1.50

* median

Groundwater quality in the Pottsville Formation was described by Thomas J. Hill in "Hydrologic Assessment, Eastern Coal Province Area 23, Alabama" on page 59. The following is an excerpt from his findings:

<u>Parameter:</u>	<u>Max:</u>	<u>Min:</u>	<u>Ave:</u>
Fet (mg/l)	7.40	0.10	0.89
pH (s.u.)	9.40	6.40	8.40*
SpC (umhos)	1760	37	504
SO4 (mg/l)	37.0	0.20	11.0

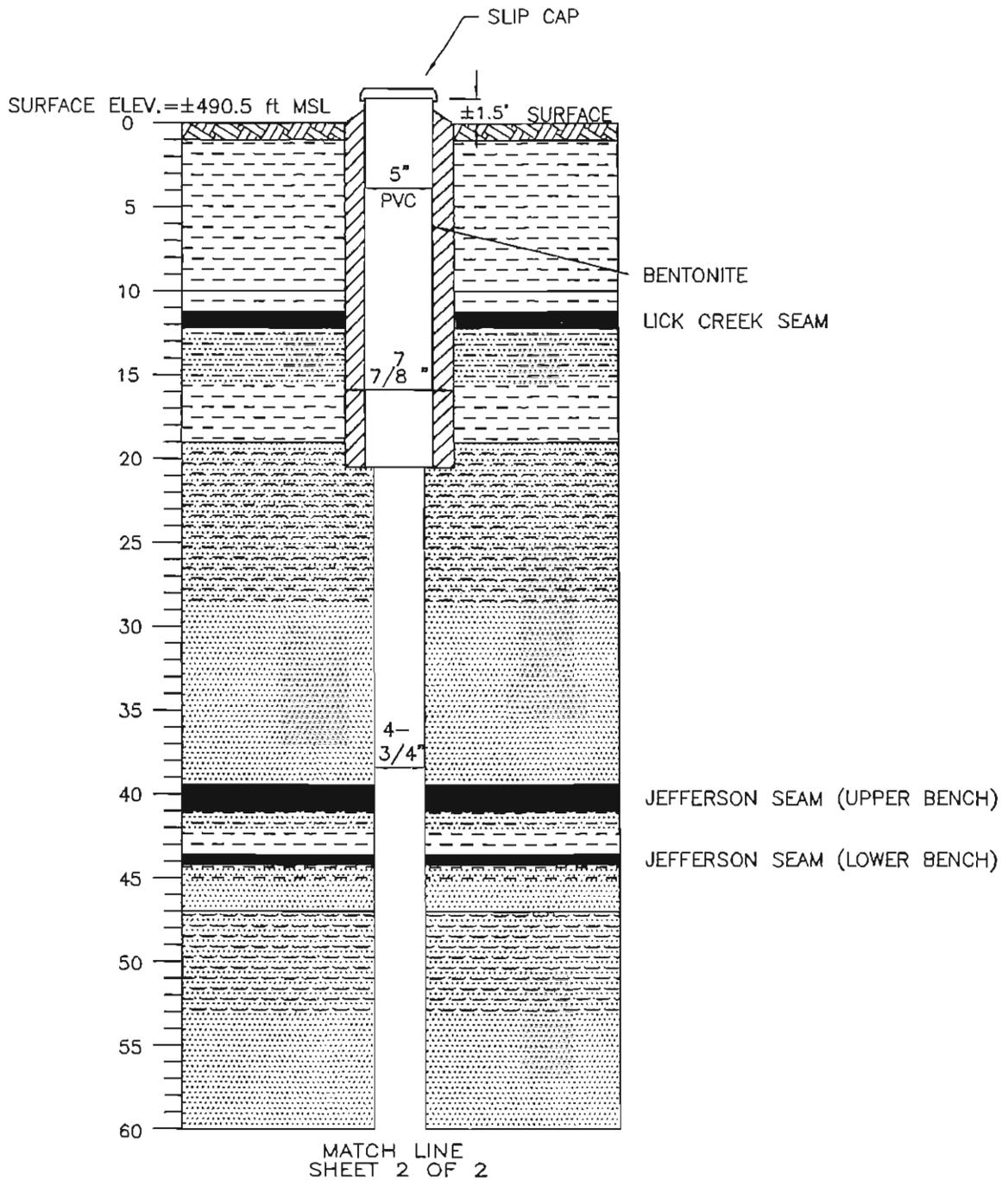
*median

A comparison between averages shown for groundwater above, within, and below the Black Creek Coal Group at the Warrior Mine vs. Pottsville Formation

averages show that the local groundwater is of lower pH, higher mineralization, lower specific conductivity, and either higher or lower sulfate concentrations than the Pottsville averages shown above. This says that, on average, local groundwater is of lower quality than the Pottsville averages and as such is probably not reliable as a domestic source from a quality standpoint. Much of the groundwater at this site has been affected by previous coal related disturbance.

A well inventory initiated by PERC Engineering Co., Inc. in October of 2010 revealed that there are 677 residences within a ½ mile radius of the Warrior Mine. The locations of all residences within a ½ mile radius of the proposed facility are shown on the attached Well Inventory Map. Pertinent information of the well inventory is attached (See Well Inventory Summary and Well Inventory Map). The well inventory will be updated and submitted to ASMC along with estimates of impact to local aquifers during the technical review.

Groundwater movement for groundwater both above and below the Black Creek Seam in the vicinity of the Warrior Mine should be down dip, as shown on the Structure-Contour Map in Part II-E. Groundwater movement in this area is influenced by the dip of the strata, local surface topography, local fault or fracture systems (if they exist), adjacent previously surface and underground mines, and the orientation of the receiving streams.



SHEET 1 OF 2

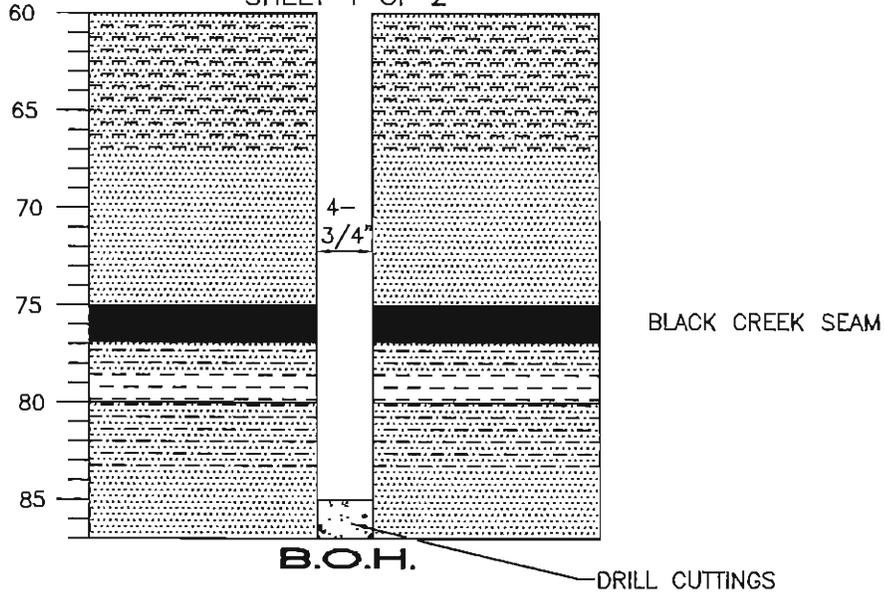
DRILL: Gardner-Denver GD1500
Lithology taken from drillers' log



**Warrior 282, LLC.
Warrior Mine
Casing Specifications for
W282WMW1**

DRAWN BY: JNG	DATE: 10-19-10
DWG. NAME: HRCWMLJTH	
APPROVED BY: TST	SCALE: 1" = 10' vertical

MATCH LINE
SHEET 1 OF 2



SHEET 2 OF 2

DRILL: Gardner-Denver GD1500
Lithology taken from drillers' log



**Warrior 282, LLC.
Warrior Mine
Casing Specifications for
W282WMW1**

DRAWN BY: JNG	DATE: 10-19-10
DWG. NAME: HRCWMLITH	
APPROVED BY: TST	SCALE: 1" = 10' vertical

**Warrior 282, LLC.
Warrior Mine
Groundwater Analysis for
W282WMW1**

	Depth	Cond	Fe	Mn	pH	SO4	Acidity	Alk
10/9/2008	22.50	194.00	2.35	0.24	7.19	10.00	26.00	78.00
11/14/2008	23.55	181.00	2.80	0.34	6.30	11.00	60.00	70.00
12/19/2008	21.25	171.00	2.78	0.38	6.50	14.00	34.00	72.00
1/5/2009	20.50	170.00	2.30	0.46	6.24	16.00	48.00	58.00
2/11/2009	21.00	223.00	2.09	0.41	6.48	19.00	38.00	66.00
3/30/2009	18.40	149.00	3.07	0.33	6.18	16.00	34.00	62.00
4/23/2009	19.20	148.00	3.22	0.27	6.17	12.00	32.00	62.00
5/21/2009	19.00	156.00	14.81	0.35	6.21	16.00	36.00	68.00
5/28/2010	20.30	170.00	2.87	0.24	6.82	19.00	30.00	62.00
6/7/2010	20.80	175.00	4.47	0.30	6.44	17.00	12.00	36.00
7/13/2010	21.00	174.00	3.90	0.25	6.13	6.00	72.00	68.00
8/31/2010	21.00	180.00	5.30	0.30	6.48	16.00	34.00	58.00
average	20.71	174.25	4.16	0.32	6.37*	14.33	38.00	63.33

*median

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Sample Number : 116362
Client : Warrior 282 LLC
Facility : Warrior Mine
Job Number :
NPDES Permit # :
Basin, Stream, Well ID: W282WMW1
Code : w
Date Taken : 10/09/2008
Sampled By : dcm
Time Taken : 1514
Depth or Flow : 22.5'
Tests to be done : pH, Fe, Mn, Cond, Acid, Alk, SO4,
Report,

Parameter	Result	Units	Analyst	Date	Time	Method
Acidity	26	mg/l	Heath Brown	10/13/2008	0930	305.1 (1)
Alkalinity	78	mg/l	Heath Brown	10/13/2008	1015	310.1 (1)
Conductivity	194	umhos	Heath Brown	10/13/2008	1540	120.1 (1)
Iron	2.35	mg/l	Ryan H. Clement	10/16/2008	1035	236.1 (1)
Manganese	0.24	mg/l	Ryan H. Clement	10/16/2008	1223	243.1 (1)
pH	7.19	s.u.	Danny C. Mays	10/09/2008	1514	150.1 (1)
Report			Sherri Fields	10/16/2008		
Sulfate	10	mg/l	Heath Brown	10/13/2008	1630	8051 (3)

- 1) EPA-600/4-79-020 Revised March 1983
- 2) Standard Methods for the Examination Water and Wastes Water
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- 4) EPA-600/4-88/039 Revised July 1991
- 5) EPA, Test Methods for Evaluating Solid Waste, SW-846, 3rd Edition
- 6) Code of Federal Regulations, Title 40, Part 136, Appendix A

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Sample Number : 117155
Client : Warrior 282 LLC
Facility : Warrior Mine
Job Number :
NPDES Permit # :
Basin, Stream, Well ID: W282WMW1
Code : w
Date Taken : 11/14/2008
Sampled By : dcm
Time Taken : 1346
Depth or Flow : 23.55'
Tests to be done : pH, Cond, Fe, Mn, SO4, Acid, Alk,
Report,

Parameter	Result	Units	Analyst	Date	Time	Method
Acidity	60	mg/l	Heath Brown	11/18/2008	0955	305.1 (1)
Alkalinity	70	mg/l	Heath Brown	11/18/2008	1405	310.1 (1)
Conductivity	181	umhos	Heath Brown	11/18/2008	0750	120.1 (1)
Iron	2.80	mg/l	Mark Williams	11/18/2008	0915	236.1 (1)
Manganese	0.34	mg/l	Mark Williams	11/18/2008	0939	243.1 (1)
pH	6.30	s.u.	Danny C. Mays	11/14/2008	1346	150.1 (1)
Report			Sherri Fields	11/20/2008		
Sulfate	11	mg/l	Heath Brown	11/17/2008	0930	8051 (3)

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Sample Number : 118201
Client : Warrior 282 LLC
Facility : Warrior Mine
Job Number :
NPDES Permit # :
Basin, Stream, Well ID: W282WMW1
Code : w
Date Taken : 12/19/2008
Sampled By : dcm
Time Taken : 1505
Depth or Flow : 21.25'
Tests to be done : pH, Fe, Mn, Cond, SO4, Acid, Alk,
Report,

Parameter	Result	Units	Analyst	Date	Time	Method
Acidity	34	mg/l	Heath Brown	12/29/2008	0810	305.1 (1)
Alkalinity	72	mg/l	Heath Brown	12/29/2008	1020	310.1 (1)
Conductivity	171	umhos	Danny C. Mays	12/19/2008	1505	120.1 (1)
Iron	2.78	mg/l	Mark Williams	01/13/2009	0935	236.1 (1)
Manganese	0.38	mg/l	Mark Williams	01/13/2009	1025	243.1 (1)
pH	6.50	s.u.	Danny C. Mays	12/19/2008	1505	150.1 (1)
Report			Sherri Fields	01/13/2009		
Sulfate	14	mg/l	Heath Brown	12/23/2008	0900	8051 (3)

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Sample Number : 118458
Client : Warrior 282 LLC
Facility : Warrior Mine
Job Number :
NPDES Permit # :
Basin, Stream, Well ID: W282WMW1
Code : w
Date Taken : 01/05/2009
Sampled By : dcm
Time Taken : 1310
Depth or Flow : 20.5'
Tests to be done : pH, Fe, Mn, Cond, SO4, Acid, Alk,
Report,

Parameter	Result	Units	Analyst	Date	Time	Method
Acidity	48	mg/l	Heath Brown	01/06/2009	0800	305.1 (1)
Alkalinity	58	mg/l	Heath Brown	01/06/2009	0845	310.1 (1)
Conductivity	170	umhos	Danny C. Mays	01/05/2009	1310	120.1 (1)
Iron	2.30	mg/l	Mark Williams	01/23/2009	1345	236.1 (1)
Manganese	0.46	mg/l	Mark Williams	01/23/2009	1411	243.1 (1)
pH	6.24	s.u.	Danny C. Mays	01/05/2009	1310	150.1 (1)
Report			Sherri Fields	01/26/2009		
Sulfate	16	mg/l	Heath Brown	01/06/2009	1430	8051 (3)

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PERC ENGINEERING CO., INC.
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Sample Number : 119534
Client : Warrior 282 LLC
Facility : Warrior Mine
Job Number :
NPDES Permit # :
Basin, Stream, Well ID: W282WMW1
Code : w
Date Taken : 02/11/2009
Sampled By : dcm
Time Taken : 1400
Depth or Flow : 21.0'
Tests to be done : pH, Fe, Mn, Cond, SO4, Acid, Alk,
Report,

Parameter	Result	Units	Analyst	Date	Time	Method
Acidity	38	mg/l	Heath Brown	02/13/2009	0900	305.1 (1)
Alkalinity	66	mg/l	Heath Brown	02/13/2009	1050	310.1 (1)
Conductivity	223	umhos	Heath Brown	02/13/2009	0800	120.1 (1)
Iron	2.09	mg/l	Mark Williams	02/17/2009	1504	236.1 (1)
Manganese	0.41	mg/l	Mark Williams	02/17/2009	1613	243.1 (1)
pH	6.48	s.u.	Danny C. Mays	02/11/2009	1400	150.1 (1)
Report			Sherri Fields	02/17/2009		
Sulfate	19	mg/l	Heath Brown	02/13/2009	1500	8051 (3)

- 1) EPA-600/4-79-020 Revised March 1983
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Sample Number : 120783
Client : Warrior 282 LLC
Facility : Warrior Mine
Job Number :
NPDES Permit # :
Basin, Stream, Well ID: W282WMW1
Code : w
Date Taken : 03/30/2009
Sampled By : dcm
Time Taken : 1300
Depth or Flow : 18.4'
Tests to be done : pH, Fe, Mn, Cond, SO4, Acid, Alk,
Report,

Parameter	Result	Units	Analyst	Date	Time	Method
Acidity	34	mg/l	Heath Brown	04/13/2009	0800	305.1 (1)
Alkalinity	62	mg/l	Heath Brown	04/13/2009	1045	310.1 (1)
Conductivity	149	umhos	Danny C. Mays	03/30/2009	1300	120.1 (1)
Iron	3.07	mg/l	Ryan H. Clement	04/17/2009	1606	236.1 (1)
Manganese	0.33	mg/l	Mark Williams	04/28/2009	1145	243.1 (1)
pH	6.18	s.u.	Danny C. Mays	03/30/2009	1300	150.1 (1)
Report			Sherri Fields	04/28/2009		
Sulfate	16	mg/l	Heath Brown	04/06/2009	1615	8051 (3)

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Sample Number : 121539
Client : Warrior 282 LLC
Facility : Warrior Mine
Job Number :
NPDES Permit # :
Basin, Stream, Well ID: W282WMW1
Code : w
Date Taken : 04/23/2009
Sampled By : dcm
Time Taken : 1130
Depth or Flow : 19.2'
Tests to be done : pH, Fe, Mn, SO4, Cond, Acid, Alk,
Report,

Parameter	Result	Units	Analyst	Date	Time	Method
Acidity	32	mg/l	Heath Brown	04/28/2009	0800	305.1 (1)
Alkalinity	62	mg/l	Heath Brown	04/28/2009	1050	310.1 (1)
Conductivity	148	umhos	Danny C. Mays	04/23/2009	1130	120.1 (1)
Iron	3.22	mg/l	Allen Bailey	05/05/2009	1355	236.1 (1)
Manganese	0.27	mg/l	Allen Bailey	05/05/2009	1556	243.1 (1)
pH	6.17	s.u.	Danny C. Mays	04/23/2009	1130	150.1 (1)
Report			Sherri Fields	05/06/2009		
Sulfate	12	mg/l	Heath Brown	04/24/2009	0815	8051 (3)

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Sample Number : 122259
Client : Warrior 282 LLC
Facility : Warrior Mine
Job Number :
NPDES Permit # :
Basin,Stream,Well ID: W282WMW1
Code : w
Date Taken : 05/21/2009
Sampled By : dcm
Time Taken : 1142
Depth or Flow : 19.0'
Tests to be done : pH, Fe, Mn, SO4, Acid, Alk, Cond,
Report,

Parameter	Result	Units	Analyst	Date	Time	Method
Acidity	36	mg/l	Heath Brown	05/27/2009	0800	305.1 (1)
Alkalinity	68	mg/l	Heath Brown	05/27/2009	1000	310.1 (1)
Conductivity	156	umhos	Danny C. Mays	05/21/2009	1142	120.1 (1)
Iron	14.81	mg/l	Allen Bailey	06/01/2009	1215	236.1 (1)
Manganese	0.35	mg/l	Allen Bailey	06/01/2009	1240	243.1 (1)
pH	6.21	s.u.	Danny C. Mays	05/21/2009	1142	150.1 (1)
Report			Sherrri Fields	06/02/2009		
Sulfate	16	mg/l	Heath Brown	05/28/2209	1500	8051 (3)

- 1) EPA-600/4-79-020 Revised March 1983
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Sample Number : 132754
Client : Warrior 282 LLC
Facility : Warrior Mine
Job Number :
NPDES Permit # :
Basin, Stream, Well ID: W282WMM1
Code : w
Date Taken : 05/28/2010
Sampled By : dcm
Time Taken : 1427
Depth or Flow : 20.3'
Tests to be done : pH, Fe, Mn, Acid, Alk, Cond, SO4,
Report,

Parameter	Result	Units	Analyst	Date	Time	Method
Acidity	30	mg/l	Heath Brown	06/15/2010	0800	305.1 (1)
Alkalinity	62	mg/l	Heath Brown	06/15/2010	1010	310.1 (1)
Conductivity	170	umhos	Danny C. Mays	05/28/2010	1427	120.1 (1)
Iron	2.87	mg/l	Allen Bailey	06/07/2010	1455	236.1 (1)
Manganese	0.24	mg/l	Allen Bailey	06/07/2010	1600	243.1 (1)
pH	6.82	s.u.	Danny C. Mays	05/28/2010	1427	150.1 (1)
Report			Sherri Fields	07/08/2010		
Sulfate	19	mg/l	Heath Brown	06/15/2010	1350	8051 (3)

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Sample Number : 133009
Client : Warrior 282 LLC
Facility : Warrior Mine
Job Number :
NPDES Permit # :
Basin, Stream, Well ID: W282WMW1
Code : w
Date Taken : 06/07/2010
Sampled By : dcm
Time Taken : 1227
Depth or Flow : 20.8'
Tests to be done : pH, Fe, Mn, Cond, SO4, Acid, Alk,
Report,

Parameter	Result	Units	Analyst	Date	Time	Method
Acidity	12	mg/l	Heath Brown	06/15/2010	0800	305.1 (1)
Alkalinity	36	mg/l	Heath Brown	06/15/2010	1010	310.1 (1)
Conductivity	175	umhos	Danny C. Mays	06/07/2010	1227	120.1 (1)
Iron	4.47	mg/l	Allen Bailey	06/18/2010	1335	236.1 (1)
Manganese	0.30	mg/l	Allen Bailey	06/18/2010	1440	243.1 (1)
pH	6.44	s.u.	Danny C. Mays	06/07/2010	1227	150.1 (1)
Report			Sherri Fields	08/02/2010		
Sulfate	17	mg/l	Heath Brown	06/15/2010	1350	8051 (3)

- 1) EPA-600/4-79-020 Revised March 1983
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- 4) EPA-600/4-88/039 Revised July 1991
- 5) EPA, Test Methods for Evaluating Solid Waste, SW-846, 3rd Edition
- 6) Code of Federal Regulations, Title 40, Part 136, Appendix A

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PERC ENGINEERING CO., INC.
P.O. Box 1712
Jasper, Alabama 35502
(205) 384-5553

Sample Number : 133995
Client : Warrior 282 LLC
Facility : Warrior Mine
Job Number :
NPDES Permit # :
Basin,Stream,Well ID: W282WMW1
Code : w
Date Taken : 07/13/2010
Sampled By : dcm
Time Taken : 1511
Depth or Flow : 21.0'
Tests to be done : pH, Fe, Mn, Cond, SO4, Acid, Alk,
Report,

Parameter	Result	Units	Analyst	Date	Time	Method
Acidity	72	mg/l	Heath Brown	07/16/2010	0810	305.1 (1)
Alkalinity	68	mg/l	Heath Brown	07/16/2010	1015	310.1 (1)
Conductivity	174	umhos	Danny C. Mays	07/13/2010	1511	120.1 (1)
Iron	3.90	mg/l	Allen Bailey	07/20/2010	1425	236.1 (1)
Manganese	0.25	mg/l	Allen Bailey	07/20/2010	1515	243.1 (1)
pH	6.13	s.u.	Danny C. Mays	07/13/2010	1511	150.1 (1)
Report			Sherri Fields	08/03/2010		
Sulfate	6	mg/l	Heath Brown	07/16/2010	1440	8051 (3)

- 1) EPA-600/4-79-020 Revised March 1983
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- 5) EPA, Test Methods for Evaluating Solid Waste, SW-846, 3rd Edition
- 5) Code of Federal Regulations, Title 40, Part 136, Appendix A

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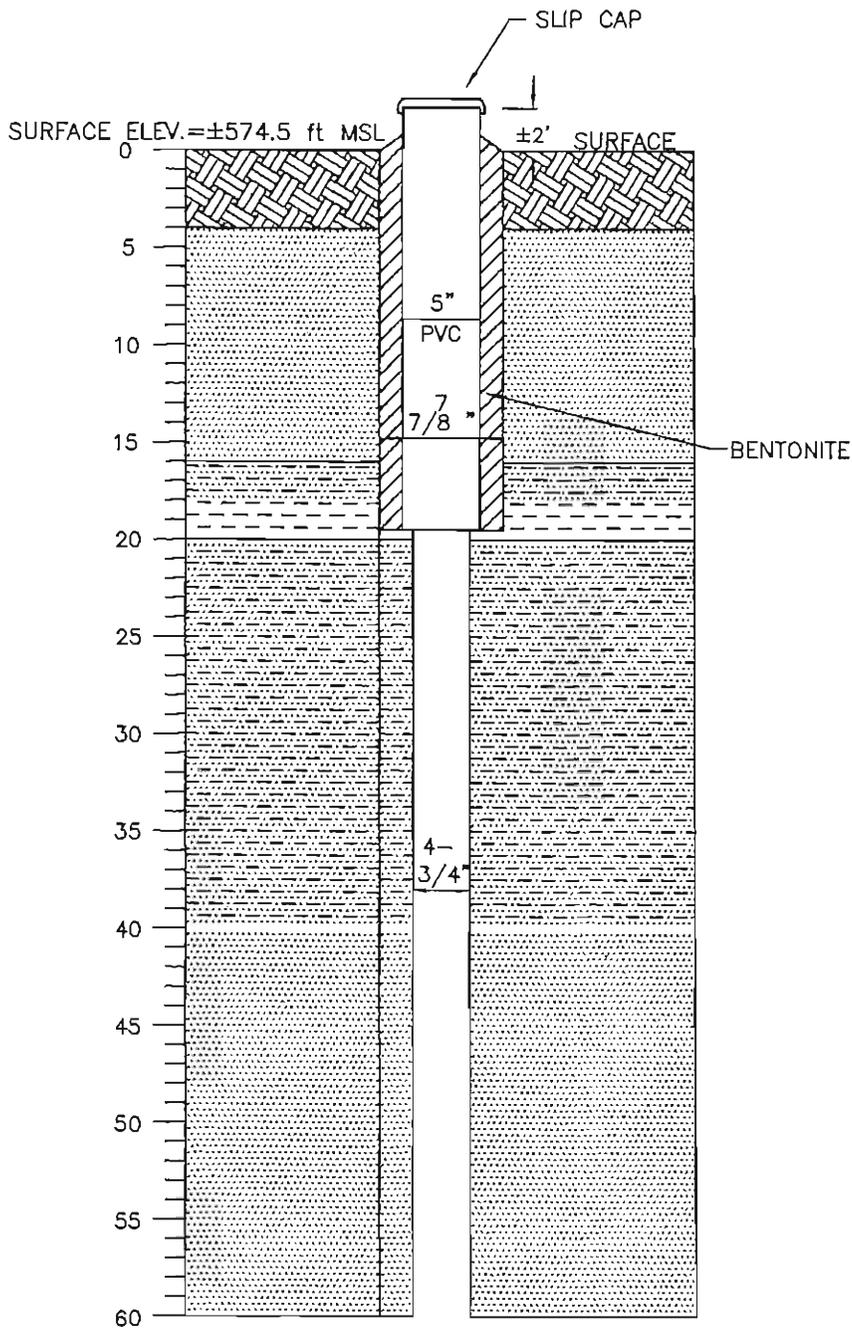
PERC ENGINEERING CO., INC.
P.O. Box 1712
Jasper, Alabama 35502
(205) 384-5553

Sample Number : 135463
Client : Warrior 282 LLC
Facility : Warrior Mine
Job Number :
NPDES Permit # :
Basin, Stream, Well ID: W282WMW1
Code : w
Date Taken : 08/31/2010
Sampled By : dcm
Time Taken : 1359
Depth or Flow : 21.0'
Tests to be done : pH, Fe, Mn, Cond, SO4, Acid, Alk,
Report,

Parameter	Result	Units	Analyst	Date	Time	Method
Acidity	34	mg/l	Heath Brown	09/10/2010	0800	305.1 (1)
Alkalinity	58	mg/l	Heath Brown	09/10/2010	0950	310.1 (1)
Conductivity	180	umhos	Danny C. Mays	08/31/2010	1359	120.1 (1)
Iron	5.30	mg/l	Allen Bailey	09/09/2010	0830	236.1 (1)
Manganese	0.30	mg/l	Allen Bailey	09/09/2010	0935	243.1 (1)
pH	6.48	s.u.	Danny C. Mays	08/31/2010	1359	150.1 (1)
Report			Sherri Fields	09/16/2010		
Sulfate	16	mg/l	Heath Brown	09/13/2010	0915	8051 (3)

- 1) EPA-600/4-79-020 Revised March 1983
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MATCH LINE
SHEET 2 OF 3

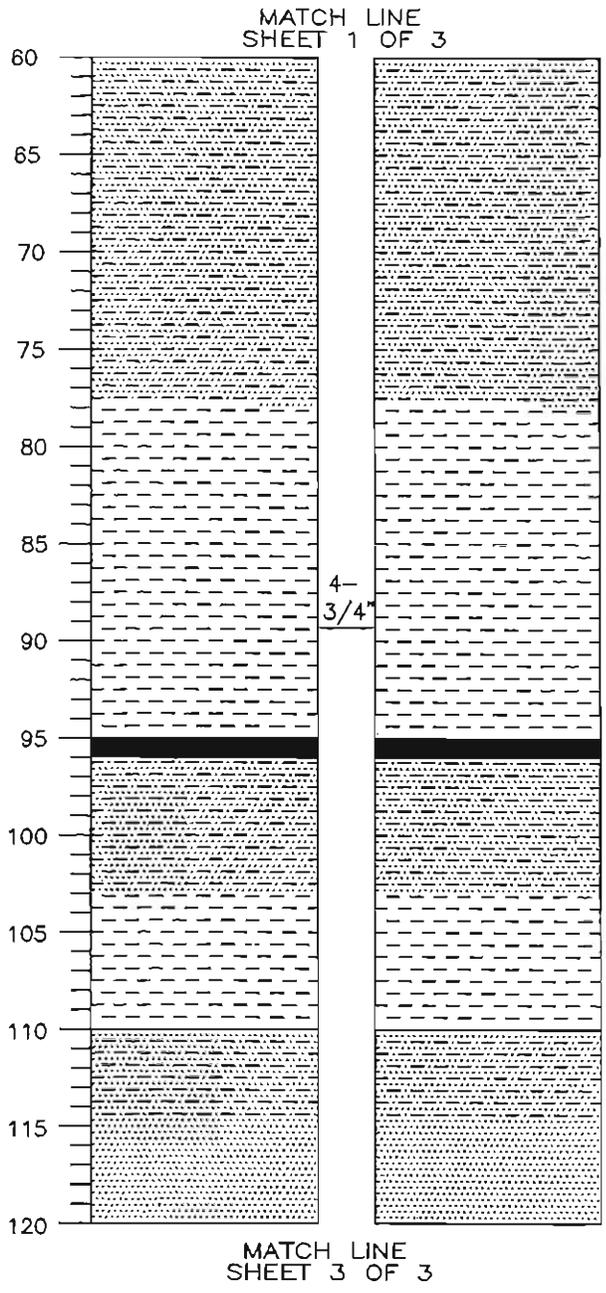
SHEET 1 OF 3

DRILL: Gardner-Denver GD1500
Lithology taken from drillers' log



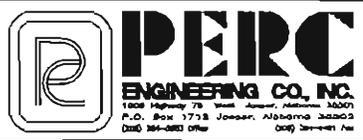
Warrior 282, LLC.
Warrior Mine
Casing Specifications for
W282WMW2A

DRAWN BY: JNG	DATE: 10-19-10
DWG. NAME: HRCWMLITH	
APPROVED BY: TST	SCALE: 1" = 10' vertical



LICK CREEK SEAM

SHEET 2 OF 3
 DRILL: Gardner-Denver GD1500
 Lithology taken from drillers' log

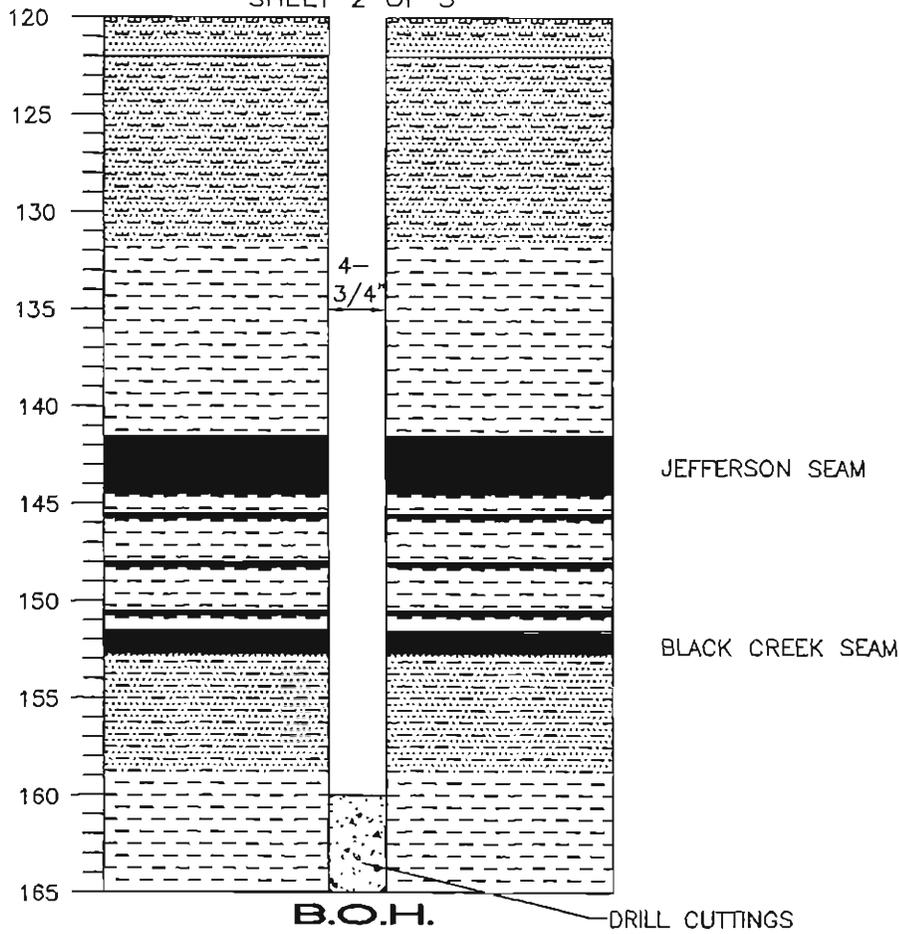


Warrior 282, LLC.
Warrior Mine
Casing Specifications for
W282WMW2A

DRAWN BY: JNG	DATE: 10-19-10
DWG. NAME: HRCWMLITH	
APPROVED BY: TST	SCALE: 1" = 10' vertical

U:\subsite\Craca\Warrior_mine\CAD\HRC\WMLITH.dwg 10/19/10 16:07

MATCH LINE
SHEET 2 OF 3



SHEET 3 OF 3

DRILL: Gardner-Denver GD1500
Lithology taken from drillers' log



**Warrior 282, LLC.
Warrior Mine
Casing Specifications for
W282WMW2A**

DRAWN BY: JNG	DATE: 10-19-10
DWG. NAME: HRCWMLITH	
APPROVED BY: TST	SCALE: 1" = 10' vertical

**Warrior 282, LLC.
Warrior Mine
Groundwater Analysis for
W282WMW2A**

	<u>Depth</u>	<u>Cond</u>	<u>Fe</u>	<u>Mn</u>	<u>pH</u>	<u>SO4</u>	<u>Acidity</u>	<u>Alk</u>
10/10/08	138.70	184.00	4.98	0.15	6.82	2.00	38.00	76.00
11/14/08	141.30	116.00	13.88	0.19	6.35	3.00	36.00	40.00
12/19/08	140.90	131.00	23.20	0.25	6.62	1.00	30.00	58.00
01/05/09	140.70	125.00	1.51	0.09	6.49	5.00	66.00	42.00
02/11/09	140.00	157.00	12.64	0.19	7.76	1.00	32.00	50.00
03/30/09	138.00	81.00	110.00	2.04	6.46	0.50	28.00	54.00
04/23/09	138.60	86.00	1.35	0.08	6.20	1.00	36.00	54.00
05/21/09	138.20	87.00	0.65	0.07	6.19	1.00	30.00	58.00
5/28/2010	140.30	79.00	9.76	0.27	6.04	1.00	38.00	54.00
6/7/2010	141.20	82.00	4.31	0.17	5.96	1.00	34.00	58.00
7/13/2010	141.30	80.00	4.03	0.13	6.19	0.50	42.00	24.00
8/31/2010	141.80	83.00	0.63	0.08	5.96	1.00	32.00	50.00
average	140.08	107.58	15.58	0.31	6.28*	1.50	36.83	51.50

*median

PERC ENGINEERING CO., INC.
P.O. Box 1712
Jasper, Alabama 35502
(205) 384-5553

Sample Number : 116363
Client : Warrior 282 LLC
Facility : Warrior Mine
Job Number :
NPDES Permit # :
Basin, Stream, Well ID: W282WMW2A
Code : w
Date Taken : 10/10/2008
Sampled By : dcm
Time Taken : 1145
Depth or Flow : 138.7'
Tests to be done : pH, Fe, Mn, Cond, Acid, Alk, SO4,
Report,

Parameter	Result	Units	Analyst	Date	Time	Method
Acidity	38	mg/l	Heath Brown	10/13/2008	0930	305.1 (1)
Alkalinity	76	mg/l	Heath Brown	10/13/2008	1015	310.1 (1)
Conductivity	184	umhos	Heath Brown	10/13/2008	1540	120.1 (1)
Iron	4.98	mg/l	Ryan H. Clement	10/16/2008	1035	236.1 (1)
Manganese	0.15	mg/l	Ryan H. Clement	10/16/2008	1223	243.1 (1)
pH	6.82	s.u.	Danny C. Mays	10/10/2008	1148	150.1 (1)
Report			Sherri Fields	10/16/2008		
Sulfate	2	mg/l	Heath Brown	10/13/2008	1630	8051 (3)

- 1) EPA-600/4-79-020 Revised March 1983
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Jasper, Alabama 35502
(205) 384-5553

Sample Number : 117156
Client : Warrior 282 LLC
Facility : Warrior Mine
Job Number :
NPDES Permit # :
Basin, Stream, Well ID: W282WMW2A
Code : w
Date Taken : 11/14/2008
Sampled By : dcm
Time Taken : 1245
Depth or Flow : 141.3'
Tests to be done : pH, Cond, Fe, Mn, SO4, Acid, Alk,
Report,

Parameter	Result	Units	Analyst	Date	Time	Method
Acidity	36	mg/l	Heath Brown	11/18/2008	0955	305.1 (1)
Alkalinity	40	mg/l	Heath Brown	11/18/2008	1405	310.1 (1)
Conductivity	116	umhos	Heath Brown	11/18/2008	0750	120.1 (1)
Iron	13.88	mg/l	Mark Williams	11/18/2008	0915	236.1 (1)
Manganese	0.19	mg/l	Mark Williams	11/18/2008	0939	243.1 (1)
pH	6.35	s.u.	Danny C. Mays	11/14/2008	1245	150.1 (1)
Report			Sherri Fields	11/20/2008		
Sulfate	3	mg/l	Heath Brown	11/17/2008	0930	8051 (3)

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PERC ENGINEERING CO., INC.
P.O. Box 1712
Jasper, Alabama 35502
(205) 384-5553

Sample Number : 118202
Client : Warrior 282 LLC
Facility : Warrior Mine
Job Number :
NPDES Permit # :
Basin,Stream,Well ID: W282WMW2A
Code : w
Date Taken : 12/19/2008
Sampled By : dcm
Time Taken : 1540
Depth or Flow : 140.9'
Tests to be done : pH, Fe, Mn, Cond, SO4, Acid, Alk,
Report,

Parameter	Result	Units	Analyst	Date	Time	Method
Acidity	30	mg/l	Heath Brown	12/29/2008	0810	305.1 (1)
Alkalinity	58	mg/l	Heath Brown	12/29/2008	1020	310.1 (1)
Conductivity	131	umhos	Danny C. Mays	12/19/2008	1540	120.1 (1)
Iron	23.2	mg/l	Mark Williams	01/13/2009	0935	236.1 (1)
Manganese	0.25	mg/l	Mark Williams	01/13/2009	1025	243.1 (1)
pH	6.62	s.u.	Danny C. Mays	12/19/2008	1540	150.1 (1)
Report			Sherri Fields	01/13/2009		
Sulfate	1	mg/l	Heath Brown	12/23/2008	0900	8051 (3)

- 1) EPA-600/4-79-020 Revised March 1983
- 2) Standard Methods for the Examination Water and Wastes Water
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PERC ENGINEERING CO., INC.
P.O. Box 1712
Jasper, Alabama 35502
(205) 384-5553

Sample Number : 118459
Client : Warrior 282 LLC
Facility : Warrior Mine
Job Number :
NPDES Permit # :
Basin, Stream, Well ID: W282WMW2A
Code : w
Date Taken : 01/05/2009
Sampled By : dcm
Time Taken : 1240
Depth or Flow : 140.7'
Tests to be done : pH, Fe, Mn, Cond, SO4, Acid, Alk,
Report,

Parameter	Result	Units	Analyst	Date	Time	Method
Acidity	66	mg/l	Heath Brown	01/06/2009	0800	305.1 (1)
Alkalinity	42	mg/l	Heath Brown	01/06/2009	0845	310.1 (1)
Conductivity	125	umhos	Danny C. Mays	01/05/2009	1240	120.1 (1)
Iron	1.51	mg/l	Mark Williams	01/23/2009	1345	236.1 (1)
Manganese	0.09	mg/l	Mark Williams	01/23/2009	1411	243.1 (1)
pH	6.49	s.u.	Danny C. Mays	01/05/2009	1240	150.1 (1)
Report			Sherri Fields	01/26/2009		
Sulfate	5	mg/l	Heath Brown	01/06/2009	1430	8051 (3)

- 1) EPA-600/4-79-020 Revised March 1983
- 2) Standard Methods for the Examination Water and Wastes Water
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PERC ENGINEERING CO., INC.
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Jasper, Alabama 35502
(205) 384-5553

Sample Number : 119535
Client : Warrior 282 LLC
Facility : Warrior Mine
Job Number :
NPDES Permit # :
Basin, Stream, Well ID: W282WMW2A
Code : w
Date Taken : 02/11/2009
Sampled By : dcm
Time Taken : 1440
Depth or Flow : 140.0'
Tests to be done : pH, Fe, Mn, Cond, SO4, Acid, Alk,
Report,

Parameter	Result	Units	Analyst	Date	Time	Method
Acidity	32	mg/l	Heath Brown	02/13/2009	0900	305.1 (1)
Alkalinity	50	mg/l	Heath Brown	02/13/2009	1050	310.1 (1)
Conductivity	157	umhos	Heath Brown	02/13/2009	0800	120.1 (1)
Iron	12.64	mg/l	Mark Williams	02/17/2009	1504	236.1 (1)
Manganese	0.19	mg/l	Mark Williams	02/17/2009	1613	243.1 (1)
pH	7.76	s.u.	Danny C. Mays	02/11/2009	1440	150.1 (1)
Report			Sherri Fields	02/17/2009		
Sulfate	1	mg/l	Heath Brown	02/13/2009	1500	8051 (3)

- 1) EPA-600/4-79-020 Revised March 1983
- 2) Standard Methods for the Examination Water and Wastes Water
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- 5) EPA, Test Methods for Evaluating Solid Waste, SW-846, 3rd Edition
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PERC ENGINEERING CO., INC.
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Jasper, Alabama 35502
(205) 384-5553

Sample Number : 120784
Client : Warrior 282 LLC
Facility : Warrior Mine
Job Number :
NPDES Permit # :
Basin, Stream, Well ID: W282WMW2A
Code : w
Date Taken : 03/30/2009
Sampled By : dcm
Time Taken : 1340
Depth or Flow : 138.0'
Tests to be done : pH, Fe, Mn, Cond, SO4, Acid, Alk,
Report,

Parameter	Result	Units	Analyst	Date	Time	Method
Acidity	28	mg/l	Heath Brown	04/13/2009	0800	305.1 (1)
Alkalinity	54	mg/l	Heath Brown	04/13/2009	1045	310.1 (1)
Conductivity	81	umhos	Danny C. Mays	03/30/2009	1340	120.1 (1)
Iron	110.0	mg/l	Ryan H. Clement	04/17/2009	1606	236.1 (1)
Manganese	2.04	mg/l	Mark Williams	04/28/2009	1145	243.1 (1)
pH	6.46	s.u.	Danny C. Mays	03/30/2009	1340	150.1 (1)
Report			Sherri Fields	04/28/2009		
Sulfate	<1	mg/l	Heath Brown	04/06/2009	1615	8051 (3)

- 1) EPA-600/4-79-020 Revised March 1983
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PERC ENGINEERING CO., INC.
P.O. Box 1712
Jasper, Alabama 35502
(205) 384-5553

Sample Number : 121540
Client : Warrior 282 LLC
Facility : Warrior Mine
Job Number :
NPDES Permit # :
Basin,Stream,Well ID: W282WMW2A
Code : w
Date Taken : 04/23/2009
Sampled By : dcm
Time Taken : 1202
Depth or Flow : 138.6'
Tests to be done : pH, Fe, Mn, SO4, Cond, Acid, Alk,
Report,

Parameter	Result	Units	Analyst	Date	Time	Method
Acidity	36	mg/l	Heath Brown	04/28/2009	0800	305.1 (1)
Alkalinity	54	mg/l	Heath Brown	04/28/2009	1050	310.1 (1)
Conductivity	86	umhos	Danny C. Mays	04/23/2009	1202	120.1 (1)
Iron	1.35	mg/l	Allen Bailey	05/05/2009	1355	236.1 (1)
Manganese	0.08	mg/l	Allen Bailey	05/05/2009	1556	243.1 (1)
pH	6.20	s.u.	Danny C. Mays	04/23/2009	1202	150.1 (1)
Report			Sherri Fields	05/06/2009		
Sulfate	1	mg/l	Heath Brown	04/24/2009	0815	8051 (3)

- 1) EPA-600/4-79-020 Revised March 1983
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PERC ENGINEERING CO., INC.
P.O. Box 1712
Jasper, Alabama 35502
(205) 384-5553

Sample Number : 122260
Client : Warrior 282 LLC
Facility : Warrior Mine
Job Number :
NPDES Permit # :
Basin, Stream, Well ID: W282WMW2A
Code : w
Date Taken : 05/21/2009
Sampled By : dcm
Time Taken : 1215
Depth or Flow : 138.2'
Tests to be done : pH, Fe, Mn, SO4, Acid, Alk, Cond,
Report,

Parameter	Result	Units	Analyst	Date	Time	Method
Acidity	30	mg/l	Heath Brown	05/27/2009	0800	305.1 (1)
Alkalinity	58	mg/l	Heath Brown	05/27/2009	1000	310.1 (1)
Conductivity	87	umhos	Danny C. Mays	05/21/2009	1215	120.1 (1)
Iron	0.65	mg/l	Allen Bailey	06/01/2009	1215	236.1 (1)
Manganese	0.07	mg/l	Allen Bailey	06/01/2009	1240	243.1 (1)
pH	6.19	s.u.	Danny C. Mays	05/21/2009	1215	150.1 (1)
Report			Sherri Fields	06/02/2009		
Sulfate	1	mg/l	Heath Brown	05/28/2209	1500	8051 (3)

- 1) EPA-600/4-79-020 Revised March 1983
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PERC ENGINEERING CO., INC.
P.O. Box 1712
Jasper, Alabama 35502
(205) 384-5553

Sample Number : 132755
Client : Warrior 282 LLC
Facility : Warrior Mine
Job Number :
NPDES Permit # :
Basin, Stream, Well ID: W282WMW2A
Code : w
Date Taken : 05/28/2010
Sampled By : dcm
Time Taken : 1515
Depth or Flow : 140.3'
Tests to be done : pH, Fe, Mn, Acid, Alk, Cond, SO4,
Report,

Parameter	Result	Units	Analyst	Date	Time	Method
Acidity	38	mg/l	Heath Brown	06/15/2010	0800	305.1 (1)
Alkalinity	54	mg/l	Heath Brown	06/15/2010	1010	310.1 (1)
Conductivity	79	umhos	Danny C. Mays	05/28/2010	1515	120.1 (1)
Iron	9.76	mg/l	Allen Bailey	06/07/2010	1455	236.1 (1)
Manganese	0.27	mg/l	Allen Bailey	06/07/2010	1600	243.1 (1)
pH	6.04	s.u.	Danny C. Mays	05/28/2010	1515	150.1 (1)
Report			Sherri Fields	07/08/2010		
Sulfate	1	mg/l	Heath Brown	06/15/2010	1350	8051 (3)

- 1) EPA-600/4-79-020 Revised March 1983
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PERC ENGINEERING CO., INC.
P.O. Box 1712
Jasper, Alabama 35502
(205) 384-5553

Sample Number : 133010
Client : Warrior 282 LLC
Facility : Warrior Mine
Job Number :
NPDES Permit # :
Basin, Stream, Well ID: W282WMW2A
Code : w
Date Taken : 06/07/2010
Sampled By : dcm
Time Taken : 1315
Depth or Flow : 141.2'
Tests to be done : pH, Fe, Mn, Cond, SO4, Acid, Alk,
Report,

Parameter	Result	Units	Analyst	Date	Time	Method
Acidity	34	mg/l	Heath Brown	06/15/2010	0800	305.1 (1)
Alkalinity	58	mg/l	Heath Brown	06/15/2010	1010	310.1 (1)
Conductivity	82	umhos	Danny C. Mays	06/07/2010	1315	120.1 (1)
Iron	4.31	mg/l	Allen Bailey	06/18/2010	1335	236.1 (1)
Manganese	0.17	mg/l	Allen Bailey	06/18/2010	1440	243.1 (1)
pH	5.96	s.u.	Danny C. Mays	06/07/2010	1315	150.1 (1)
Report			Sherri Fields	08/02/2010		
Sulfate	1	mg/l	Heath Brown	06/15/2010	1350	8051 (3)

- 1) EPA-600/4-79-020 Revised March 1983
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PERC ENGINEERING CO., INC.
P.O. Box 1712
Jasper, Alabama 35502
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Sample Number : 133996
Client : Warrior 282 LLC
Facility : Warrior Mine
Job Number :
NPDES Permit # :
Basin, Stream, Well ID: W282WMW2A
Code : w
Date Taken : 07/13/2010
Sampled By : dcm
Time Taken : 1600
Depth or Flow : 141.3'
Tests to be done : pH, Fe, Mn, Cond, SO4, Acid, Alk,
Report,

Parameter	Result	Units	Analyst	Date	Time	Method
Acidity	42	mg/l	Heath Brown	07/16/2010	0810	305.1 (1)
Alkalinity	24	mg/l	Heath Brown	07/16/2010	1015	310.1 (1)
Conductivity	80	umhos	Danny C. Mays	07/13/2010	1600	120.1 (1)
Iron	4.03	mg/l	Allen Bailey	07/20/2010	1425	236.1 (1)
Manganese	0.13	mg/l	Allen Bailey	07/20/2010	1515	243.1 (1)
pH	6.19	s.u.	Danny C. Mays	07/13/2010	1600	150.1 (1)
Report			Sherri Fields	08/03/2010		
Sulfate	<1	mg/l	Heath Brown	07/16/2010	1440	8051 (3)

- 1) EPA-600/4-79-020 Revised March 1983
- 2) Standard Methods for the Examination Water and Wastes Water
- 3) HACH Water Analysis Handbook, 2nd Edition
- 4) EPA-600/4-88/039 Revised July 1991
- 5) EPA, Test Methods for Evaluating Solid Waste, SW-846, 3rd Edition
- 6) Code of Federal Regulations, Title 40, Part 136, Appendix A

APPROVED BY: _____

PERC ENGINEERING CO., INC.
P.O. Box 1712
Jasper, Alabama 35502
(205) 384-5553

Sample Number : 135464
Client : Warrior 282 LLC
Facility : Warrior Mine
Job Number :
NPDES Permit # :
Basin, Stream, Well ID: W282WMW2A
Code : w
Date Taken : 08/31/2010
Sampled By : dcm
Time Taken : 1500
Depth or Flow : 141.8'
Tests to be done : pH, Fe, Mn, Cond, SO4, Acid, Alk,
Report,

Parameter	Result	Units	Analyst	Date	Time	Method
Acidity	32	mg/l	Heath Brown	09/10/2010	0800	305.1 (1)
Alkalinity	50	mg/l	Heath Brown	09/10/2010	0950	310.1 (1)
Conductivity	83	umhos	Danny C. Mays	08/31/2010	1500	120.1 (1)
Iron	0.63	mg/l	Allen Bailey	09/09/2010	0830	236.1 (1)
Manganese	0.08	mg/l	Allen Bailey	09/09/2010	0935	243.1 (1)
pH	5.96	s.u.	Danny C. Mays	08/31/2010	1500	150.1 (1)
Report			Sherri Fields	09/16/2010		
Sulfate	1	mg/l	Heath Brown	09/13/2010	0915	8051 (3)

- 1) EPA-600/4-79-020 Revised March 1983
- 2) Standard Methods for the Examination Water and Wastes Water
- 3) HACH Water Analysis Handbook, 2nd Edition
- 4) EPA-600/4-88/039 Revised July 1991
- 5) EPA, Test Methods for Evaluating Solid Waste, SW-846, 3rd Edition
- 6) Code of Federal Regulations, Title 40, Part 136, Appendix A

APPROVED BY: _____

**WARRIOR 282, LLC.
WARRIOR MINE
WELL INVENTORY SUMMARY**

RESIDENCE NUMBER	MUNICIPAL WATER	WATER AUTHORITY	WELL	TOTAL DEPTH	NUMBER OF RESIDENTS	WELL USAGE
WW-1	Not at home					
WW-2	Not at home					
WW-3	Not at home					
WW-4	Not at home					
WW-5	Not at home					
WW-6	Not at home					
WW-7	Not at home					
WW-8	Not at home					
WW-9	Not at home					
WW-10	Not at home					
WW-11	Not at home					
WW-12	Not at home					
WW-13	Not at home					
WW-14	Not at home					
WW-15	Not at home					
WW-16	Not at home					
WW-17	Not at home					
WW-18	Not at home					
WW-19	Not at home					
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WW-24	Not at home					
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WW-32	Not at home					
WW-33	Not at home					
WW-34	Not at home					
WW-35	Not at home					
WW-36	Not at home					
WW-37	Not at home					
WW-38	Not at home					
WW-39	Not at home					
WW-40	Not at home					
WW-41	Not at home					
WW-42	Not at home					
WW-43	Not at home					
WW-44	Not at home					

RESIDENCE NUMBER	MUNICIPAL WATER	WATER AUTHORITY	WELL	TOTAL DEPTH	NUMBER OF RESIDENTS	WELL USAGE
WW-45	Not at home					
WW-46	Not at home					
WW-47	Not at home					
WW-48	Not at home					
WW-49	Not at home					
WW-50	Not at home					
WW-51	Not at home					
WW-52	Not at home					
WW-53	Not at home					
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WW-87	Not at home					
WW-88	Not at home					
WW-89	Not at home					
WW-90	Not at home					
WW-91	Not at home					
WW-92	Not at home					

RESIDENCE NUMBER	MUNICIPAL WATER	WATER AUTHORITY	WELL	TOTAL DEPTH	NUMBER OF RESIDENTS	WELL USAGE
WW-93	Not at home					
WW-94	Not at home					
WW-95	Not at home					
WW-96	Not at home					
WW-97	Not at home					
WW-98	Not at home					
WW-99	Not at home					
WW-100	Not at home					
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WW-136	Not at home					
WW-137	Not at home					
WW-138	Not at home					
WW-139	Not at home					
WW-140	Not at home					
WW-141	Not at home					
WW-142	Not at home					

RESIDENCE NUMBER	MUNICIPAL WATER	WATER AUTHORITY	WELL	TOTAL DEPTH	NUMBER OF RESIDENTS	WELL USAGE
WW-143	Not at home					
WW-144	Not at home					
WW-145	Not at home					
WW-146	Not at home					
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WW-189	Not at home					
WW-190	Not at home					
WW-191	Not at home					
WW-192	Not at home					
WW-193	Not at home					

RESIDENCE NUMBER	MUNICIPAL WATER	WATER AUTHORITY	WELL	TOTAL DEPTH	NUMBER OF RESIDENTS	WELL USAGE
WW-194	Not at home					
WW-195	Not at home					
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WW-199	Not at home					
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WW-243	Not at home					

RESIDENCE NUMBER	MUNICIPAL WATER	WATER AUTHORITY	WELL	TOTAL DEPTH	NUMBER OF RESIDENTS	WELL USAGE
WW-244	Not at home					
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WW-291	Not at home					
WW-292	Not at home					
WW-293	Not at home					

RESIDENCE NUMBER	MUNICIPAL WATER	WATER AUTHORITY	WELL	TOTAL DEPTH	NUMBER OF RESIDENTS	WELL USAGE
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RESIDENCE NUMBER	MUNICIPAL WATER	WATER AUTHORITY	WELL	TOTAL DEPTH	NUMBER OF RESIDENTS	WELL USAGE
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WW-392	Not at home					
WW-393	Not at home					
WW-394	Not at home					
WW-395	Not at home					

RESIDENCE NUMBER	MUNICIPAL WATER	WATER AUTHORITY	WELL	TOTAL DEPTH	NUMBER OF RESIDENTS	WELL USAGE
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RESIDENCE NUMBER	MUNICIPAL WATER	WATER AUTHORITY	WELL	TOTAL DEPTH	NUMBER OF RESIDENTS	WELL USAGE
WW-447	Not at home					
WW-448	Not at home					
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WW-451	Not at home					
WW-452	Not at home					
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WW-497	Not at home					

RESIDENCE NUMBER	MUNICIPAL WATER	WATER AUTHORITY	WELL	TOTAL DEPTH	NUMBER OF RESIDENTS	WELL USAGE
WW-498	Not at home					
WW-499	Not at home					
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WW-501	Not at home					
WW-502	Not at home					
WW-503	Not at home					
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RESIDENCE NUMBER	MUNICIPAL WATER	WATER AUTHORITY	WELL	TOTAL DEPTH	NUMBER OF RESIDENTS	WELL USAGE
WW-549	Not at home					
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WW-593	Not at home					
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WW-595	Not at home					
WW-596	Not at home					
WW-597	Not at home					
WW-598	Not at home					
WW-599	Not at home					

RESIDENCE NUMBER	MUNICIPAL WATER	WATER AUTHORITY	WELL	TOTAL DEPTH	NUMBER OF RESIDENTS	WELL USAGE
WW-600	Not at home					
WW-601	Not at home					
WW-602	Not at home					
WW-603	Not at home					
WW-604	Not at home					
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WW-649	Not at home					
WW-650	Not at home					

RESIDENCE NUMBER	MUNICIPAL WATER	WATER AUTHORITY	WELL	TOTAL DEPTH	NUMBER OF RESIDENTS	WELL USAGE
WW-651	Not at home					
WW-652	Not at home					
WW-653	Not at home					
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WW-670	Not at home					
WW-671	Not at home					
WW-672	Not at home					
WW-673	Not at home					
WW-674	Not at home					
WW-675	Not at home					
WW-676	Not at home					
WW-677	Not at home					