#14-167

# DODDRIDGE COUNTY FLOODPLAIN DEVELOPMENT PERMIT APPLICATION

# SECTION 1: GENERAL PROVISIONS (APPLICANT TO READ AND SIGN)

1.	No work may start until a permit is issued.
2.	The permit may be revoked if any false statements are made herein. S
3.	If revoked, all work must cease until permit is re-issued.
4.	Development shall not be used or occupied until a Certificate of Compliance is
_	issued.
	The permit will expire if no work is commenced within six months of issuance.
6.	Applicant is hereby informed that other permits may be required to fulfill lead, ?? state, and federal requirements.
7.	Applicant hereby gives consent to the Floodplain Administrator/Manager or his/her
	representative to make inspections to verify compliance.
8.	I, THE APPLICANT CERTIFY THAT ALL STATEMENTS HEREIN AND IN
	ATTACHMENTS TO THIS APPLICATION ARE, TO THE BEST OF MY
	KNOWLEDGE, TRUE AND ACCURATE.
	APPLICANT'S SIGNATURE
	DATE3/5/14
SECTION	2: PROPOSE DEVELOPMENT (TO BE COMPLETED BY APPLICANT).
iF	THE APPLICANT IS NOT A NATURAL PERSON, THE NAME, ADDRESS, AND
	ONE NUMBER OF A NATURAL PERSON WHO SHALL BE APPOINTED BY
	LICANT TO RECEIVE NOTICE PURSUANT TO ANY PROVISION OF THE
	T DODDRIDGE COUNTY FLOODPLAIN ORDINANCE.
COMMEN	PODDRIDGE COORT I TEOODFERIN ORDINANCE.
ADDITO	NT'S NAME: KEVIN KILSTram
	1110010
	1625 17th Street, Denver, CO 80202
TELEPHO	NE NUMBER: Contact Shauna DeMattee: 303-357-6820

BUILDER'S NAME: Antero Resources Corporation
ADDRESS: 1625 17th Street, Denver, CO 80202
TELEPHONE NUMBER: (303) 357-7310
ENGINEER'S NAME: Navitus Engineering Inc
ADDRESS:_151 Windy Hill Lane, Winchester, Viriginia 22602
<b>TELEHONE</b> 888-662-4185
PROJECT LOCATION:
NAME OF SURFACE OWNER/OWNERS (IF NOT THE APPLICANT) Please see attachment
ADDRESS OF SURFACE OWNER/OWNERS (IF NOT THE APPLICANT)  Please see attachment
DISTRICT: Central and West Union
DATE/FROM WHOM PROPERTY
PURCHASED:N/A
LAND BOOK DESCRIPTION:
DEED BOOK REFERENCE:Please see attachment
TAX MAP REFERENCE: Please see attachment
EXISTING BUILDINGS/USES OF PROPERTY:
NAME OF AT LEAST ONE ADULT RESIDING IN EACH RESIDENCE LOCATED UPON THE SUBJECT
PROPERTY
ADDRESS OF AT LEAST ONE ADULT RESIDING IN EACH RESIDENCE LOCATED UPON THE SUBJECT PROPERTY

To avoid delay in processing the application, please provide enough information to easily identify the project location.

# DESCRIPTION OF WORK (CHECK ALL APPLICABLE BOXES)

A. STRUCTURAL DEVELOPMENT

ACT	IVITY				STRU	CTU	RAL TYPE	
Addition Alteration Relocation Demolition		bil Home		0 0 0 0 0	Reside Non-re Combi	ntial esider ned L	(more than 4 Fa atial (floodproo Use (res. & com	fing)
OTHER DEV	'EOPLI	MENT ACTIV	VITIES:					
Watercourse Drainage Im Road, Street Subdivision Individual W	e Altero proven , or Bri (includi ater or	ation (includi nents (includii dge Construct ng new expar Sewer Syster	ng dredg ng culver tion nsion)	ELOPMENT	Γ check		•	. :
	New Structure Addition Alteration Relocation Demolition Manufacture  OTHER DEV  Fill Grading Excavation ( Watercourse Drainage Im Road, Street Subdivision ( Individual W	Alteration Relocation Demolition Manufactured/Mo  OTHER DEVEOPLI  Fill [] Grading Excavation (except Watercourse Altero Drainage Improvem Road, Street, or Brid Subdivision (includi Individual Water or	New Structure Addition Alteration Relocation Demolition Manufactured/Mobil Home  OTHER DEVEOPLMENT ACTIV  Fill [] Mining Grading Excavation (except for STRUCTUL Watercourse Altercation (includi Drainage Improvements (includi Road, Street, or Bridge Construct Subdivision (including new expan	New Structure Addition Alteration Relocation Demolition Manufactured/Mobil Home  OTHER DEVEOPLMENT ACTIVITIES:  Fill [] Mining X Grading Excavation (except for STRUCTURAL DEVI Watercourse Altercation (including dredge Drainage Improvements (including culver Road, Street, or Bridge Construction Subdivision (including new expansion) Individual Water or Sewer System	New Structure  Addition  Alteration  Relocation  Demolition  Manufactured/Mobil Home  OTHER DEVEOPLMENT ACTIVITIES:  Fill  Mining  Grading  Excavation (except for STRUCTURAL DEVELOPMENT Watercourse Altercation (including dredging and chorainage Improvements (including culvert work)  Road, Street, or Bridge Construction  Subdivision (including new expansion)  Individual Water or Sewer System	New Structure  Addition  Alteration  Relocation  Demolition  Manufactured/Mobil Home  OTHER DEVEOPLMENT ACTIVITIES:  Fill  Mining  Grading  Excavation (except for STRUCTURAL DEVELOPMENT check Watercourse Altercation (including dredging and channel of Drainage Improvements (including culvert work)  Road, Street, or Bridge Construction  Subdivision (including new expansion)  Individual Water or Sewer System	New Structure [] Residential ( Addition [] Residential ( Alteration [] Non-residential ( Relocation [] Combined to  Demolition [] Replacement  Manufactured/Mobil Home  OTHER DEVEOPLMENT ACTIVITIES:  Fill [] Mining X Drilling []  Grading  Excavation (except for STRUCTURAL DEVELOPMENT checked above  Watercourse Altercation (including dredging and channel modification  Drainage Improvements (including culvert work)  Road, Street, or Bridge Construction  Subdivision (including new expansion)  Individual Water or Sewer System	New Structure [] Residential (1 – 4 Family)  Addition [] Residential (more than 4 Family)  Alteration [] Non-residential (floodproof Relocation [] Combined Use (res. & composition [] Replacement  Manufactured/Mobil Home  OTHER DEVEOPLMENT ACTIVITIES:  Fill [] Mining X Drilling [] Pipelining  Grading  Excavation (except for STRUCTURAL DEVELOPMENT checked above)  Watercourse Altercation (including dredging and channel modification)  Drainage Improvements (including culvert work)  Road, Street, or Bridge Construction  Subdivision (including new expansion)  Individual Water or Sewer System

## C. STANDARD SITE PLAN OR SKETCH

- 1. SUBMIT ALL STANDARD SITE PLANS, IF ANY HAVE BEEN PREPARED.
- 2. IF STANDARD SITE PLANS HAVE NOT BEEN PREPARED:

  SKETCH ON A SEPARATE 8 ½ X 11 INCH SHEET OF PAPER THE SHAPE AND LOCATION OF THE LOT. SHOW THE LOCATION OF THE INTENDED CONSTRUCTION OR LAND USE INDICATING BUILDING SETBACKS, SIZE & HEIGHT. IDENTIFY EXISTING BUILDINGS, STRUCTURES OR LAND USES ON THE PROPERTY.
- 3. SIGN AND DATE THE SKETCH.

ACTUAL TOTAL CONSTRUCTION COSTS OF THE COMPLETE DEVELOPMENT IRRESPECTIVE OF WHETHER ALL OR ANY PART OF THE SUBJECT PROPOSED CONSTRUCTION PROJECT IS WITHIN THE FLOODPLAIN \$ N/A - Location is not within the floodplain

D. ADJACENT AND/OR AFFECTED LANDOWNERS:

1. NAME AND ADDRESS OF ALL OWNERS OF SURFACE TRACTS ADJACENT TO THE AREA OF THE SURFACE TRACT (UP & DOWN STREAM) UPON WHICH THE PROPOSED ... **ACTIVITY WILL OCCUR AND ALL OTHER SURFACE OWNERS UP & DOWN STREAM)** WHO OWN PROPERTY THAT MAY BE AFFECTED BY FLOODING AS IS DEMONSTRATED BY A FLOODPLAIN STUDY OR SURVEY (IF ONE HAS BEEN COMPLETED). N/A-No properties sharing an NAME:\_\_\_\_ ADDRESS: immediate and common boundary up or down stream due to the ADDRESS: —location not being in floodplain NAME:\_\_\_\_\_ NAME:\_\_\_\_\_ ADDRESS:\_\_\_\_ ADDRESS:\_\_\_\_\_ 1. NAME AND ADDRESS OF AT LEAST ONE ADULT RESIDING IN EACH RESIDENCE LOCATED UPON ANY ADJACENT PROPERTY AT THE TIME THE FLOODPLAIN PERMIT APPLICATION IS FILED AND THE NAME AND ADDRESS OF AT LEAST ONE ADULT RESIDING IN ANY HOME ON ANY PROPERTY THAT MAY BE AFFECTED BY FLOODING AS IS DEMONSTRATED BY A FLOODPLAIN STUDY OR SURVEY. NAME: N/A NAME:\_\_\_\_ ADDRESS:\_\_\_\_\_ ADDRESS: NAME:\_\_\_\_\_

### E. **CONFIRMATION FORM**

ADDRESS:\_\_\_\_

THE APPLICANT ACKNOWLEDGES, AGREES, AND CONFIRMS THAT HE/IT WILL PAY WITHIN 30 DAYS OF RECEIPT OF INVOICE BY THE COUNTY FOR ALL EXPENSES RELATIVE TO THE PERMIT APPLICATION PROCESS GREATER THAN THE REQUIRED DEPOSIT FOR EXPENSES **INCLUDING:** 

(A) PERSONAL SERVICE OF PROCESS BY THE DODDRIDGE COUNTY SHERIFF AT THE RATES PERMITTED BY LAW FOR SUCH SERVICE.

NAME:\_\_\_\_\_

ADDRESS:

- SERVICE BY CERTIFIED MAIL RETURN RECEIPT REQUESTED. (B)
- (C) PUBLICATION.

- (D) COURT REPORTING SERVICES AT ANY HEARINGS REQUESTED BY THE APPLICANT.
- (E) CONSULTANTS AND/OR HEARING EXPERTS UTILIZED BY DODDRIDGE COUNTY FLOODPLAIN ADMINISTRATOR/MANAGER OR FLOODPLAIN APPEALS BOARD FOR REVIEW OF MATERIALS AND/OR TESTIMONY REGARDING THE EFFICACY OF GRANTING OR DENYING THE APPLICANT'S FLOODPLAIN PERMIT.

NAME (PRINT): KEVIN HISTIAM
SIGNATURE: DATE: 3/5/14
After completing SECTION 2, APPLICANT should submit form to Floodplain Administrator/Manager or his/her representative for review.
SECTION 3: FLOODPLAIN DETERMINATION (to be completed by Floodplain Administrator/Manager or his/her representative)
THE PROPOSED DEVELOPMENT:
THE PROPOSED DEVELOPMENT IS LOCATED ON:
FIRM Panel:
Dated:
Is <u>NOT</u> located in a Specific Flood Hazard Area (Notify applicant that the application eview is complete and <b>NO FLOOPLAIN DEVELOPMENT PERMIT IS REQUIRED</b> ).
Is located in Special Flood Hazard Area.
FIRM zone designation
100-Year flood elevation is:NGVD (MSL)
Unavailable
The proposed development is located in a floodway.
FBFM Panel No Dated

See section 4 for additional instructions.

SIGNED Ralph Sun

DATE 3 10-14

# SECTION 4: ADDITIONAL INFORMATION REQUIRED (To be completed by Floodplain Administrator/Manager or his/her representative)

The applicant must submit the documents checked below before the application can be processed.

[]	A plan showing the location of all existing structures, water bodies, adjacent roads, lot
	dimensions and proposed development.
()	Development plans, drawn to scale, and specifications, including where applicable: details for anchoring structures, storage tanks, proposed elevation of lowest floor, (including basement or crawl space), types of water resistant materials used below the first floor, details of flood proffing of utilities located below the first floor and details of enclosures below the first floor. Also
()	Subdivision or other development plans (If the subdivision or development exceeds 50 lots or 5 acres, whichever is the lesser, the applicant must provide 100-year flood elevations if they are not otherwise available).
[]	Plans showing the extent of watercourse relocation and/or landform alterations.
[]	Top of new fill elevationFt. NGVD (MSL).
	For floodproofing structures applicant must attach certification from registered engineer or architect.
	Certification from a registered engineer that the proposed activity in a regulatory floodway will not result in any increase in the height of the 100-year flood. A copy of all data and calculations supporting this finding must also be submitted.
[]	Manufactured homes located in a floodplain area must have a West Virginia Contractor's License and a Manufactured Home Installation License as required by the Federal Emergency Management Agency (FEMA).

	Other:	
T		MIT DETERMINATION (To be completed by Floodplain ator/Manager or his/her representative)
	provisions of	mined that the proposed activity (type is or is not) in conformance with f the Floodplain Ordinance adopted by the County Commission of Doddridg 1ay 21, 2013. The permit is issued subject to the conditions attached to and f this permit.
	SIGNED	DATE
	with the prov	plain Administrator/Manager found that the above was not in conformance visions of the Doddridge County Floodplain Ordinance and/or denied that the applicant may complete an appealing process below.
	APPEALS:	Appealed to the County Commission of Doddridge County? [] Yes {} No Hearing Date:
		County Commission Decision - Approved [] Yes [] No
	CONDITIONS	:
	<del></del>	

# SECTION 6: AS-BUILT ELEVATIONS (To be submitted by APPLICANT before Certificate of Compliance is issued).

The following information must be provided for project structures. This section must be completed by a registered professional engineer or a licensed land surveyor (or attach a certification to this application).

# COMPLETE 1 OR 2 BELOW:

1	Actual (As-Built) Elevation of the top of the lowest floor (including basement or crawl space isFT. NGVD (MSL)
2	Actual (As Built) elevation of floodproofing isFT. NGVD (MSL)
Note appi	e: Any work performed prior to submittal of the above information is at risk of the icant.
SEC	TION 7: COMPLIANCE ACTION (To be completed by the Floodplain
<u>Adn</u>	ninistrator/Manager or his/her representative).
as ap	Floodplain Administrator/Manager or his/her representative will complete this section oplicable based on inspection of the project to ensure compliance with the Doddridge of the Ploodplain Ordinance.
11	NSPECTIONS:
	DATE:BY: DEFICIENCIES ? Y/N
C	OMMENTS
<u>SECT</u>	ION 8: CERTIFICATE OF COMPLIANCE (To be completed by Floodplain
<u>Adm</u>	inistrator/Manager or his/her representative).
Certif	icate of Compliance issued: DATE:

# CERTIFICATE OF COMPLIANCE FOR DEVELOPMENT IN SPECIAL FLOOD HAZARD AREA (OWNER MUST RETAIN)

T
:
IENT OF THE
SION OF

## **Surface Owners:**

George D. Lambert 12 Townridge Ac Mullens, WV 25882 DB/PG: 288/49

TM/Parcel: 4/33

Jonathan L. Davis & Jeffery Wm. Davis

Rt. 1 Box 271

West Union, WV 26456

DB/PG: 243/262

TM/Parcel: 4/35 & 36

Jonathan L. Davis & L. Diane Davis and Benjamin Arnold Davis 3175 Sam Cavins Road West Union, WV 26456

DB/PG: 243/262 TM/Parcel: 4/35 & 36

Jeffery W. Davis & Sue Ann Davis and Benjamin Arnold Davis 858 Old River Road Madison, WV 25130 DB/PG: 243/262

TM/Parcel: 4/35 & 36

Martha A. McConnell HC 69 Box 16 West Union, WV 26456

DB/PG: 264/631 TM/Parcel: 4/39



### LOCATION COORDINATES

ACCESS ROAD ENTRANCE LATITUDE: 39.296222 LONGITUDE: -80.799541 (NAD 83) N 4349668.65 E 517285.49 (UTM ZONE 17 METERS)

CENTROID OF STAGING AREA "B" LATITUDE: 39.299423 LONGITUDE: -80.800056 (NAD 83) N 4350023.78 E 517240.30 (UTM ZONE 17 METERS)

CENTER OF WATER CONTAINMENT TANK
LATITUDE: 39.303990 LONGITUDE: -80.810564 (NAD 83)
N 4350528.67 E 516333.18 (UTM ZONE 17 METERS)

CENTROID OF WELL PAD LATITUDE: 39.304923 LONGITUDE: -80.814848 (NAD 83) N 4350631.48 E 515980.84 (UTM ZONE 17 METERS

## GENERAL DESCRIPTION

THE ACCESS ROAD(S), WELL PAD, AND WATER CONTAINMENT PAD ARE BEING CONSTRUCTED TO AID IN THE DEVELOPMENT OF INDIVIDUAL MARCELLUS SHALE GAS WELLS.

THE PROPOSED SITE IS LOCATED IN FLOODZONE "X" PER FEMA FLOOD MAPS #54017C0115C & #54017C0120C

MISS UTILITY STATEMENT
ANTERO RESOURCES CORPORATION WILL NOTIFY MISS UTILITY OF WEST VIRGINIA FOR THE LOCATING
OF UTILITIES PRIOR TO THIS PROJECT DESIGN: TICKET #1329179341.
IN ADDITION, MISS UTILITY WILL BE CONTACTED BY THE CONTRACTOR PRIOR TO THE START OF
CONSTRUCTION FOR THIS PROJECT.

ANTERO RESOURCES CORPORATION WILL OBTAIN AN ENCROACHMENT PERMIT (FORM MM-109) FROM THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS, PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES.

ENVIRONMENTAL NOTES
WETLAND DELINEATIONS WERE PERFORMED BETWEEN OCTOBER, 2013 & FEBRUARY, 2014 BY ALLSTAR ECOLOGY, LLC TO REVIEW THE SITE FOR WATERS AND WETLANDS THAT ARE MOST LIKELY WITHIN THE REGULATORY PURVIEW OF THE U.S. ARMY CORPS OF ENGINEERS (USACE) AND/OR THE WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION (WVDEP). THE FEBRUARY 06, 2013 ROCK RUN & COFOR JURISDICTIONAL STREAMS & WETLANDS MAPS WERE PREPARED BY ALLSTAR ECOLOGY, LLC AND SUMMARIZE THE RESULTS OF THE FIELD DELINEATION. THE MAPS DO NOT, IN ANY WAY, REPRESENT A JURISDICTIONAL DETERMINATION OF THE LANDWARD LIMITS OF WATERS AND WETLANDS WHICH MAY BE REGULATED BY THE USACE OR THE WYDEP. IT IS STRONGLY RECOMMENDED THAT THE AFOREMENTIONED ACENCIES BE CONSULTED IN AN EFFORT TO GAIN WRITTEN CONFIRMATION OF THE DELINEATION SHOWN ON THIS EXHIBIT PRIOR TO ENGAGING CONSTRUCTION ON THE PROPERTY DESCRIBED HEREIN. THE DEVELOPER SHALL OBTAIN THE APPROPRIATE PERMITS FROM THE FEDERAL AND/OR STATE REGULATORY AGENCIES PRIOR TO ANY PROPOSED IMPACTS TO WATERS OF THE U.S., INCLUDING WETLAND FILLS AND STREAM CROSSINGS

GEOTECHNICAL NOTE
A GEOTECHNICAL INVESTIGATION OF THE PROPOSED SITE WAS PERFORMED BY PENNSYLVANIA SOIL & ROCK, INC. ON JANUARY 15 THROUGH FEBRUARY 5, 2014. THE REPORT PREPARED BY PENNSYLVANIA SOIL & ROCK, INC. DATED FEBRUARY 17, 2014, REFLECTS THE RESULTS OF THE SUBSURFACE INVESTIGATION. THE INFORMATION AND RECOMMENDATIONS CONTAINED IN THIS REPORT WAS USED IN THE PREPARATION OF THESE PLANS. PLEMSE REFER TO THE GEOTECHNICAL INVESTIGATION REPORT BY PENNSYLVANIA SOIL & ROCK, INC. FOR ADDITIONAL INFORMATION, AS NEEDED.

### PROJECT CONTACTS

OPERATOR:
ANTERO RESOURCES CORPORATION 535 WHITE OAKS BLVD. BRIDGEPORT, WV 26330 PHONE: (304) 842-4100 FAX: (304) 842-4112

ELI WAGONER - ENVIRONMENTAL ENGINEER OFFICE: (304) 842-4068 CELL: (304) 476-9770

JOHN KAWCAK - OPERATIONS SUPERINTENDENT CELL: (817) 368-1553

AARON KUNZLER - CONSTRUCTION SUPERVISOR CELL: (405) 227-8344

ANTHONY SMITH - FIELD ENGINEER OFFICE: (304) 842-4208 CELL: (304) 673-6196

WARK JOHNSON - SURVEYING COORDINATOR OFFICE: (304) 842-4162 CELL: (304) 719-6449

DAVE CAVA - LAND AGENT CELL: (304) 641-5814

ENGINEER/SURVEYOR:
NAVITUS ENGINEERING, INC.
CYRUS S. KUMP, PE - PROJECT MANAGER/ENGINEER OFFICE: (888) 662-4185 CELL: (540) 686-6747

ENVIRONMENTAL: ALLSTAR ECOLOGY, LLC RYAN L. WARD — ENVIRONMENTAL SCIENTIST OFFICE: (866) 213-2666 CELL: (304) 692-7477

THERE ARE NO PERENNIAL STREAMS, WETLANDS, LAKES, PONDS, OR RESERVOIRS WITHIN 100 FEET OF THE WELL PAD AND LOD.

- 2. THERE ARE NO NATURALLY PRODUCING TROUT STREAMS WITHIN 300 FEET OF THE WELL PAD AND
- 3. THERE ARE NO GROUNDWATER INTAKE OR PUBLIC WATER SUPPLY FACILITIES WITHIN 1000 FEET 4. THERE ARE NO APPARENT EXISTING WATER WELLS OR DEVELOPED SPRINGS WITHIN 250 FEET OF
- THERE ARE NO OCCUPIED DWELLING STRUCTURES WITHIN 625 FEET OF THE CENTER OF THE
- THERE ARE NO AGRICULTURAL BUILDINGS LARGER THAN 2,500 SQUARE FEET WITHIN 625 FEET OF

# ROCK RUN WELL PAD & WATER CONTAINMENT PAD

# SITE DESIGN & CONSTRUCTION PLAN. **EROSION & SEDIMENT CONTROL PLANS**

CENTRAL & WEST UNION DISTRICTS, DODDRIDGE COUNTY, WEST VIRGINIA NUTTER FORK - MIDDLE ISLAND CREEK & ARNOLD CREEK WATERSHEDS



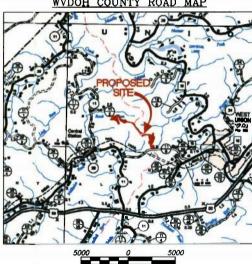


## WEST VIRGINIA COUNTY MAP



MISS Utility of West Virginia 1-800-245-4848 West Virginia State Law (Section XIV: Chapter 24-C) Requires that you call two business days before you dig in the state of West Virginia. IT'S THE LAW!!

## WVDOH COUNTY ROAD MAP



DESIGN CERTIFICATION
THE DRAWINGS, CONSTRUCTION NOTES, AND THE DRAWINGS, CONSTRUCTION NOTES, AND REFFERENCE DIAGRAMS ATTACHED HERETO HAVE BEEN PREPARED IN ACCORDANCE WITH THE WEST VIRGINIA CODE OF STATE RULES, DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS CRS 35-8.

## SHEET INDEX

- 1 COVER SHEET
- 2 CONSTRUCTION AND E&S CONTROL NOTES
- 3 MATERIAL QUANTITIES
- 4 EXISTING CONDITIONS
- 5 OVERALL PLAN SHEET INDEX & VOLUMES
- 6 ACCESS ROAD & STAGING AREA "A" PLAN
- 7 ACCESS ROAD & STAGING AREA "B" PLAN
- 9 ACCESS ROAD & WATER CONTAINMENT PAD PLAN
- 10 ACCESS ROAD & WELL PAD PLAN
- 11-12 ACCESS ROAD PROFILES
- 13-17 ACCESS ROAD SECTIONS
- 18-19 WELL PAD SECTIONS
- 20 STAGING AREA "B" SECTIONS
- 21 STAGING AREA "B" & WATER CONTAINMENT PAD SECTIONS
- 22 STREAM CROSSING DETAILS
- 29 ACCESS ROAD & STAGING AREA "A" RECLAMATION PLAN
- 30 ACCESS ROAD & STAGING AREA "R" RECLAMATION PLAN
- 31 ACCESS ROAD RECLAMATION PLAN
- 32 ACCESS ROAD & WATER CONTAINMENT PAD RECLAMATION PLAN
- 33 ACCESS ROAD & WELL PAD RECLAMATION PLAN

GE500-GE512 - GEOTECHNICAL DETAILS

ROCK RUN EPHEN	ERAL STRE	AM IMPACT (LINE	AR FEET)	
Stream and Impact Cause	Fill (LF)	Culvert (LF)	Inlets/Outlets Structures (LF)	Total Impact (LF)
Ephemeral Stream 04 (Access Road "A")	2	N/A	N/A	2
Ephemeral Stream 05 (Access Road "A")	0	52	14	66

		impacts to bought F. Fair,	
		Access Road "A" (218')	Г
BOOK BUNK BUTS OF DISTURBANG	E AREA (AC)	Access Road "B" (0')	Г
Total Site	ERICHA (MC)	Water Containment Pad	Г
	16.40	Excess/Topsoil Material Stockpiles	
Access Road "A" (4,792')	6.36	Total Affected Area	Г
Access Road "B" (1,253')	1.36	Total Wooded Acres Disturbed	
Access Road "C" (523')		Impacts to Martha A. McConne	III
Staging Area "A"	1.39	Access Road "A" (758')	_
Well Pad	6.81	Access Road "B" (1,253')	H
Staging Area "B"	3.70	Well Pad	Н
Water Containment Pad	2.27	Water Containment Pad	
Excess/Topsoil Material Stockpiles	11.86		H
Total Affected Area	50.15	Excess/Topsoil Material Stockpiles	H
Total Wooded Acres Disturbed	43.52	Total Affected Area	L
mpacts to Coastal Forest Resources	Co. TM 11-12	Total Wooded Acres Disturbed	L
Access Road "A" (2,356')	7.75	Impacts to George D. Lamber	ŧ٦
Access Road "C" (523')	1.36	Access Road "B" (0')	
Staging Area "A"	1.39	Well Pad	
Staging Area "B"	3.70	Excess/Topsoil Material Stockpiles	
Excess/Topsoil Material Stockpiles	7.93	Total Affected Area	
Total Affected Area	22.13	Total Wooded Acres Disturbed	
Total Wooded Acres Disturbed	19.00	Impacts to Jonathan L. & Jeffery W.	. 0
Impacts to Coastal Forest Resource	10.00	Well Pad	
Access Road "A" (1,460")	5.55	Total Affected Area	
Total Affected Area	5.55	Total Wooded Acres Disturbed	
Total Wooded Acres Disturbed	4.72	Impacts to Jonathan L. & Jeffery W.	. 0
. Julia 1100000 7 ISINO DISIMBUM		Well Pad	

Proposed (Initializations)	WV North NAO 27	WW North	UTM (METERS) Zone 17	NAD 53 Lat & Long
Future Well	N 295873.44	N 295908.52	N 4350635.20	LAT 39-18-17.8429
	E 1627981.56	E 1596540.38	E 515991.08	LONG -80-48-52.3053
Future Well	N 295873.29	N 295908.37	N 4350635.10	LAT 39-18-17.8400
	E 1627971.56	E 1596530.38	E 515988 03	LONG -80-48-52.4325
Devonian	N 295873.14	N 295908.22	N 4350635.01	LAT 39-18-17.8370
Unit 3H	E 1627961.57	E 1596520.38	E 515984.98	LONG -80-48-52.5596
Devonian	N 295872.99	N 295908.07	N 4350634.91	LAT 39-18-17.8341
Unit 2H	E 1627951.57	E 1596510.38	E 515981.94	LONG -80-48-52.6868
Devonlan	N 295872.83	N 295907.92	N 4350634.81	LAT 39-18-17.8311
Unit 1H	E 1627941.57	E 1596500.38	E 515978.89	LONG -80-48-52.8140
Wentz	N 295872.68	N 295907.76	N 4350634.72	LAT 39-18-17.8282
Unit 2H	E 1627931.57	E 1596490.39	E 515975.85	LONG -80-48-52.9411
Wentz	N 295872.53	N 295907.61	N 4350634.62	LAT 39-18-17.8252
Unit 1H	E 1627921.57	E 1596480.39	E 515972 80	LONG -80-48-53.0683
Twyford	N 295872.38	N 295907.46	N 4350634.52	LAT 39-18-17.8223
Unit 2H	E 1627911.57	E 1596470.39	E 515969.76	LONG -80-48-53.1954
Weil Pad Elevation	1,171.0			

Total Affected Area

S



THIS DOCUMENT WAS PREPARED FOR: ANTERO RESOURCES CORPORATION

0.09

2.83 2.65

9.77

8.62

0.25

7.65

2.10 2.10

avis TM 4-35

0.12

WATER



DATE: 02/21/2014 SCALE: AS SHOWN SHEET 1 OF 34