

#### west virginia department of environmental protection

Office of Oil and Gas 601 57th Street SE Charleston, WV 25304 (304) 926-0450 (304) 926-0452 fax Earl Ray Tomblin, Governor Randy C. Huffman, Cabinet Secretary www.dep.wv.gov

January 27, 2014

#### WELL WORK PLUGGING PERMIT

#### Plugging

This permit, API Well Number: 47-4701582, issued to GEOMET OPERATING COMPANY INC, is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to all conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas inspector.

Upon completion of the plugging well work, the above named operator will reclaim the site according to the provisions of WV Code 22-6-30. The above named operator will also file, as required in WV Code 22-6-23, an affidavit on form WR-38 by two experienced persons in the operator's employment and the Oil and Gas inspector that the work authorized under this permit was performed and a description given. Failure to abide by all statutory and regulatory provisions governing all duties and operations here under may result in suspensions or revocation of this permit and in addition may result in civil and/or criminal penalities being imposed upon the operator.

This permit will expire in two (2) years from date of issue. If there are any questions,

please free to contact me at (304) 926-0499 ext. 1654,

James Martin

Chief

Operator's Well No: ALAWEST-004

Farm Name: ALAWEST, INCORPORATED

API Well Number: 47-4701582

Permit Type: Plugging
Date Issued: 01/27/2014

Promoting a healthy environment.

47015829

### **PERMIT CONDITIONS**

West Virginia Code § 22-6-11 allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

#### **CONDITIONS**

- 1. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
- 2. In the event of an accident or explosion causing loss of life or serious personal injury in or about the well or while working on the well, the well operator or its contractor shall give notice, stating the particulars of the accident or explosion, to the oil and gas inspector and the Chief within twenty-four (24) hours.
- 3. Well work activities shall not constitute a hazard to the safety of persons.

WW-4B Rev. 2/01

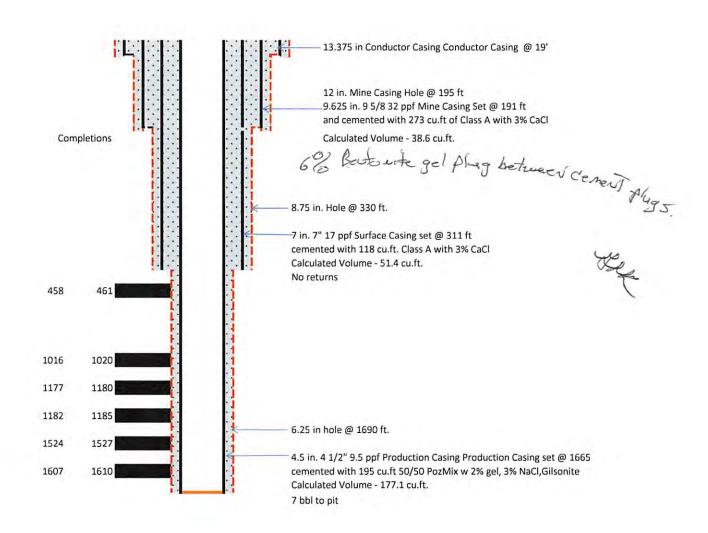
1) Date December 17th	, :	20 <b>13</b>
2)Operator's		
Well No. Alawest 004		
3) API Well No. 47-047		- 01582C

# STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF OIL AND GAS

APPLICATION FOR A PER	MIT TO PLUG AND ABANDON
4) Well Type: Oil/ Gas X/ Liqui	d injection/ Waste disposal/
(If "Gas, Production $X$ or Un	derground storage) Deep/ Shallow
5) Location: Elevation 1644'	Watershed
District Sandy River	County McDowell Quadrangle lager 40 6
6) Well Operator GeoMet Operating Co. Inc	7) Designated Agent Eric Vance
Address 5336 Stadium Trace Pkwy, Suite 206	
Birmingham, AL 35242	Daniels, WV 25832
8) Oil and Gas Inspector to be notified	9)Plugging Contractor
Name Gary Kennedy	Name Universal Well Services
Address PO Box 268	Address 5252 RT 1428
Nimitz WV, 25978	Ailen, KY 41601
A permanent marker will be installed a reclaimed.	ed to fill the well that consists of  6% Berkevit Get Plug Between Central plus  after the well is filled, then the site will be  d to surface, see attached well drawings.
Notification must be given to the district of work can commence.	il and gas inspector 24 hours before permitted
Work order approved by inspector	Keurely Date 1/10/14

# Alawest No. 004 Plug and Abandon Schematic

#### API# 4704701582



W/v Department of Environmental Protection

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Gas

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WR-35 Rev (5-01) E: February 26, 2002 A. #: 47-047-01582C

# State of West Virginia Department of Environmental Protection Office of Oil and Gas

Well Operator's Report of Well Work

. Farm name: Alawest Inc.	Opera	tor Well No.:	Alawest 004	·····
LOCATION: Elevation: 1644	Quadrangle: <u>laegar</u>			
District: Sandy River  Latitude: 838 Feet North of 37 Deg.  Longitude: 184 Feet West of 81 Deg.	27 Min. 3		1	
Company: GeoMet Operating Company, Inc.	Casing &	Used in	Left in well	Cement fill up Cu. Ft.
Address: 5336 Stadium Trc Parkway, Suite 206	<b>Tubing</b> 13-3/8"	drilling 19'	19'	Cu. Ft.
Birmingham, Alabama 35244	13-3/0	17	+ 1	
Agent: Gregg Cleary	9-5/8"	191'	191'	60/Pumped 240
Inspector: Offe Helmick	7 570	171	1.2.	00/14
Date Permit Issued: 11/05/01	7"	311'	311'	43/Pumped 162
Date Well Work Commenced: 11/29/01	!			
Date Well Work Completed: 01/0402	4-1/2"	1663'	1663'	170/Pumped 195
Verbai Plugging:				
Date Permission granted on:				
Rotary X Cable Rig				
Total Depth (feet): 1894				
Fresh Water Depth (ft.): Unknown			<u> </u>	
			ļ	ļ
Salt Water Depth (ft.): Unknown		ļ		
	ļ			
Is coal being mined in area (N/Y)? NO		ļ		ļ
Coal Depths (ft.):458/494/794/1016/1177/1524/1584/1607				
OPEN FLOW DATA				
Producing formation All Zones Commin Gas: Initial open flow MCF/d Oil: Final open flow MCF/d F Time of open flow between initial and fi Static rock Pressure 10 psig (surface pre NOTE: ON BACK OF THIS FORM PUT THE INTERVALS, FRACTURING OR STIMULATIN LOG WHICH IS A SYSTEMATIC DETAILED INCLUDING COAL ENCOUNTERED BY THE	Initial open flowinal tests_ssure) after FOLLOWING OFFICIAL OFFICIAL GEOLOGICA	owE VE Hour 696_Hours : 1). DETAILS LL CHANGE,	Sbl/d S S OF PERFORAT ETC. 2). THE W	'ELL
Signed:  By: Bry Bymell  Date:	3-19-	o. <del>2</del> 2		W.

API#: 47-047-01582C

Operator Well #: Alawest-004 Farm Name: Alawest Inc.

1.) Details of perforated intervals, fracturing or stimulating, physical change, etc.

#### 1st Stage:

Perf Poca 1, 1607'-1610', Poca 2, 1584'- 1587', Pressured out before breakdown. Move to stage 2.

#### 2<sup>nd</sup> Stage:

Perf Poca 3, 1524'-1527' & frac on 12/18/01 by Superior with 70Q Foam 30400# 16/30 Sand, 350000 SCF N2, 167 Total Bbls Fluid. Breakdown Pressure 2925 PSIG, Average Pressure 3000 PSI, ISIP 2009 PSI

#### 3rd Stage:

Perf Firecreek, 1182'-1185';1177'-1180'& frac on 12/18/01 by Superior with 70Q Foam 65000# 16/30 Sand, 385000 SCF N2, 250 Total Bbls Fluid. Breakdown Pressure 1842 PSIG, Average Pressure 2128 PSI, ISIP 1323 PSI

#### 4th Stage:

Perf Beckley, 1016'-1020' & frac on 12/18/01 by Superior with 70Q Foam 25000# 16/30 Sand, 210000 SCF N2, 190 Total Bbls Fluid. Breakdown Pressure 3360 PSIG, Average Pressure 1890 PSI,

#### 5th Stage:

Perf Un-named Coal 458'-461'& frac on 12/18/01 by Superior with 70Q Foam 30600# 16/30 Sand, 83000 SCF N2, 170 Total Bbls Fluid. Breakdown Pressure 1652 PSIG, Average Pressure 690 PSI, ISIP 433 PSI

2.) The well log which is a systematic detailed geological record of all formations, including coal encountered by the wellbore.

#### 0-146 Sandstone/Shale

o x to culture	iono Bhair
146 – 153	Mine Void
153 – 311	Sandstone/Shale
311 - 377	Sandstone
377 – 444	Shale
444 – 616	Sandstone/Shale with coal bands
616 – 667	Shale
667 – 914	Sandstone with shale bands and thin coals
914 – 969	Shale
969 – 1104	Sandstone/Shale with coal bands
1104 – 1147	Sandstone
1147 – 1313	Sandstone/Shale with coal bands
1313 1347	Sandstone
1347 - 1415	Sandstone/Shale
1415 – TD	Sandstone/Shale with coal bands

PECENCIA Office of Online Gas

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WV Decertment of Environmental Arotection

01582C

WW-4A Revised 6-07

1) Date:	December 17,2013	
2) Operato	or's Well Number	
Alawest 004		

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS

3) API Well No.: 47 -

4) Surface Ow	vner(s) to be served:	5) (a) Coal Operato	or	
(a) Name	Alawest,Inc	Name		
Address	P.O. Box 920	Address		
Welch, WV 24801 (b) Name				
		(b) Coal O	(b) Coal Owner(s) with Declaration	
Address	-	Name	Alawest, Inc.	
		Address	P.O. Box 920	
			Welch, WV 24801	
(c) Name		Name	THE S. V. The second second	
Address		Address		
	7-	<del></del> -		
6) Inspector	Gary Kennedy	(c) Coal Le	essee with Declaration	
Address	Box 268	Name	Caretta Minerals, LLC	
	Nimitz WV 25978	Address	P.O. Box 309	
Telephone	304-382-8402		Prosperity, WV 25909	
	n you received these documents is that you have you are not required to take any action at all.	cation on Form WW-6.  re rights regarding the appli	ication which are summarized in the instructions on the reverses side	
Take notic accompan Protection the Applic	you are not required to take any action at all.  te that under Chapter 22-6 of the West Virginia ying documents for a permit to plug and abando with respect to the well at the location describ	ve rights regarding the appli a Code, the undersigned well on a well with the Chief of to bed on the attached Applica- tered or certified mail or de	I operator proposes to file or has filed this Notice and Application and he Office of Oil and Gas, West Virginia Department of Environmentation and depicted on the attached Form WW-6. Copies of this Notice	
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The Office of Oil and Gas processes your personal information, such as name, address and phone number, as a part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use of your personal information, please contact DEP's Chief Privacy Officer at depprivacyoffier@wv.gov.

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For delivery inform	nation visit our website at www.usps.com
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or PO Box No.  City, State, Zip) 4  PS Form 3800, August 2006	penity Wy 309
3, August 2006	See Reverse for Instructions

Office of Oil and Gas

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WV Department of
Environmental Protection

WW-9 Rev. 5/08

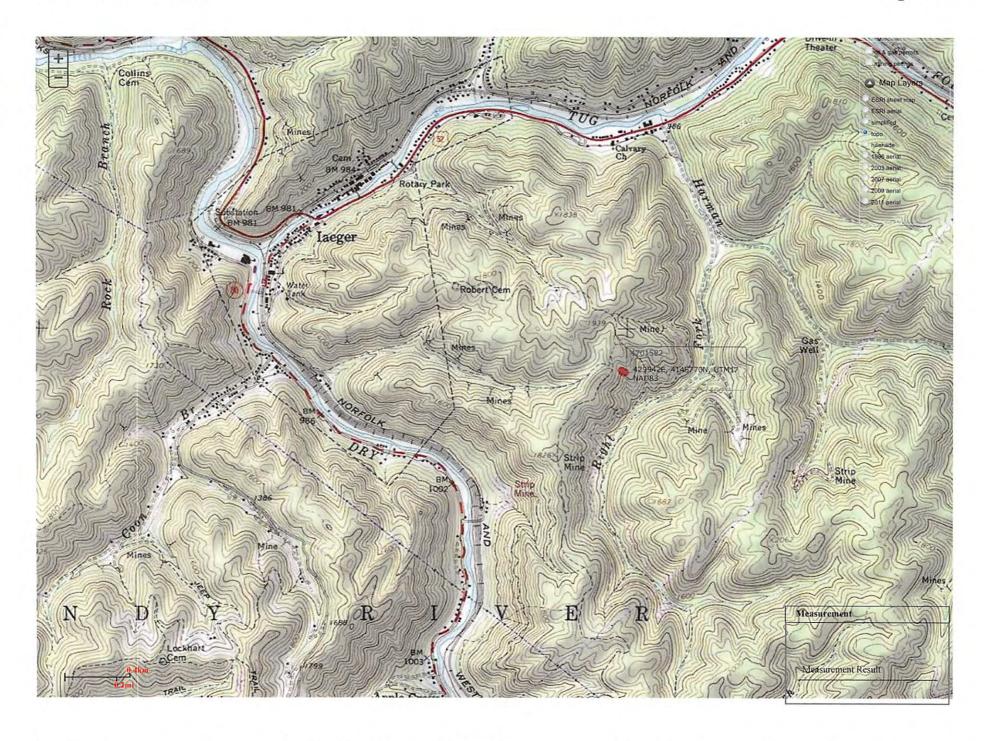
	Page 1		of 2	
API Number 47 -	047		01582C	
Operator's Well N	O. Alawest	004		

#### STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF OIL AND GAS

CONSTRUCTION AND RECLAMATION PLAN AND SITE REGISTRATION APPLICATION FORM

	Met Operating Company, Inc.	OP Code
Vatershed	Quadrangle la	ger
Elevation 1644'	County McDowell	District Sandy River
Description of anticip	eated Pit Waste: Fresh Water, Cement	
	be used in the pit? 85bbl Flowback tank	No be
Proposed Disposal M	ethod For Treated Pit Wastes:	
	Land Application	
	Underground Injection ( UIC Permit Number	
	Reuse (at API Number	
D=	Off Site Dispposal (Supply form WW-9 for disposal loc Other (Explain	cation)
Proposed Work For V	Vhich Pit Will Be Used:	
	Drilling Swabbing	
_	Workover X Plugging	
	Other (Explain_	
on August 1, 2005, by provisions of the peri	I understand and agree to the terms and conditions of the Gly the Office of Oil and Gas of the West Virginia Department of the enforceable by law. Violations of any term or conditions.	of Environmental Protection. I understand
on August 1, 2005, by provisions of the peri- aw or regulation can I certify und application form and obtaining the informa- penalties for submitting	with the Office of Oil and Gas of the West Virginia Department of the mit are enforceable by law. Violations of any term or conditional lead to enforcement action. The penalty of law that I have personally examined and am I all attachments thereto and that, based on my inquiry of action, I believe that the information is true, accurate, and my false information, including the possibility of fine or impringulative.  Separature  Jeffery S. Cooper  Production Managers	of Environmental Protection. I understand tion of the general permit and/or other ap a familiar with the information submitted of those individuals immediately respons complete. I am aware that there are sig
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Property Boundary	Diversion (c::()()()()()()()()()()()()()()()()()()
Rond = = = = = = = = = = = = = = = = = = =	Spring
Existing Fence — X — X — X —	Wet Spat
Planned Fence///	Drain Pipe with size in inches
Stream A A A A A A A A A A A A A A A A A A A	Waterway $\longleftrightarrow$ $\longleftrightarrow$ $\longleftrightarrow$
Open Ditch	Cross Drain
Rock 685886	Artificial Filter Strip
North N	Pit: cut walls
Buildings	Pit: compacted fill walls
Water wells	Area for Land Application of Pit Waste
Drill site	
Proposed Revegetation Treatment: Acres Disturbed 0.5	Prevegetation pH 5-6.5
Lime 2 Tons/acre or to correct to pH	
• ,	acre (500 lbs minimum)
Mulch Hay/Straw Tons/ac	сте
Saad	Mixtures
Secu	Whitehos
Area I Seed Type   lbs/acre	Area II Seed Type   lbs/acre
Seed Type Ibs/acre	Area II Seed Type lbs/acre
Seed Type Ibs/acre Tall Fescue 40	
Seed Type Ibs/acre	
Seed Type Ibs/acre Tall Fescue 40	
Seed Type Ibs/acre Tall Fescue 40  Alsike or White Dutch Clover 5	
Seed Type Ibs/acre Tall Fescue 40 Alsike or White Dutch Clover 5 Tonga Perennial Ryegrass 24	
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1644.79 FT

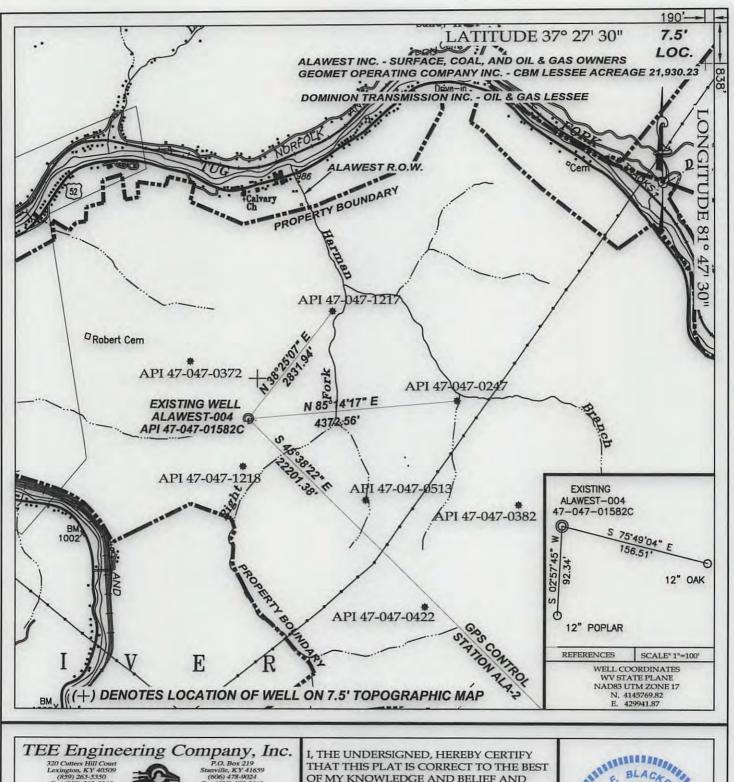
WW-7 8-30-06

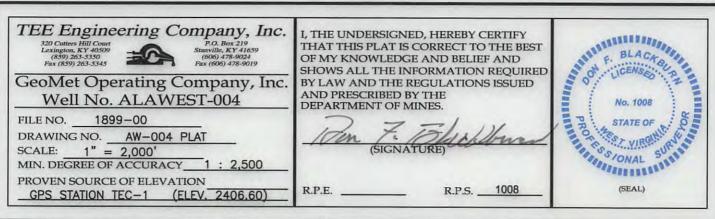


## West Virginia Department of Environmental Protection Office of Oil and Gas

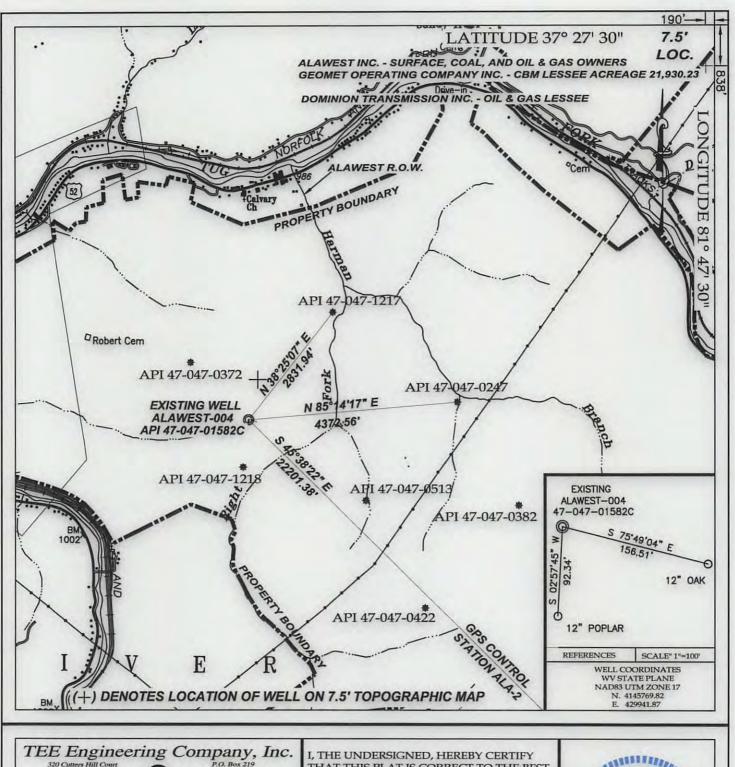
## WELL LOCATION FORM: GPS

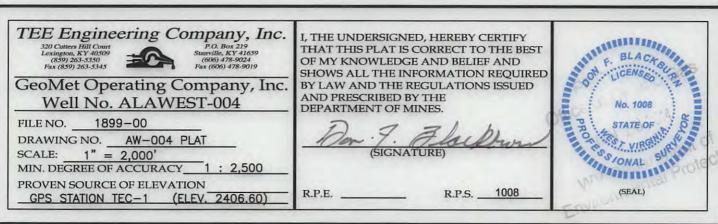
<sub>API:</sub> 47-047-01582C	WELL NO.:	Alawest 004
FARM NAME: Alawest 00		
RESPONSIBLE PARTY NAME:	GeoMet Operating	Company, Inc.
COUNTY: McDowell		andy River
QUADRANGLE: laeger		
SURFACE OWNER: Alawes	st Inc.	
ROYALTY OWNER: Alawes	st Inc.	
UTM GPS NORTHING: 4145	769.82	
UTM GPS EASTING: 42994		TION: 501.33 M
the following requirements:  1. Datum: NAD 1983, Zonheight above mean seale  2. Accuracy to Datum – 3.0  3. Data Collection Method: Survey grade GPS × : Post Pr	05 meters	neters, Altitude:
	ime Differential 1.5 cm	
Mapping Grade GPS: Pos	t Processed Differential	
Rea	al-Time Differential	
4. Letter size copy of the t I the undersigned, hereby certify this belief and shows all the information prescribed by the Office of Oil and O	required by law and the regulat Gas.	y knowledge and ions issued and
Signature June	Field Services Mgr	1-16-14 Date
organiture /	Title	Date





STATE OF WEST VIRGINIA	DATE DECEMBER 26 , 2013
DEPARTMENT OF ENVIRONMENTAL PROTECTION	OPERATOR'S WELL NO. ALAWEST 803 004
OFFICE OF OIL AND GAS	$ \begin{array}{c c} API \\ WELL \\ NO. \end{array}  \begin{array}{c} 47 \\ STATE \end{array}  -  \begin{array}{c} 047 \\ COUNTY \end{array}  -  \begin{array}{c} 01582C \\ PERMIT \end{array} $
WELL TYPE: OIL GASX CBM LIQUID INJECTION (IF "GAS") PRODUCTION STORAGE DE	EEP SHALLOW
LOCATION: ELEVATION 1,644.79' NORTHING 4145769.82 EAU DISTRICT SANDY RIVER WATER S	SHED HARMAN BRANCH
QUADRANGLE IAEGER	
SURFACE OWNER ALAWEST INC.	ACREAGE 21,930.23
CBM ROYALTY OWNER ALAWEST INC.	LEASE ACREAGE 21,930.23
LEASE NO. WV-103-00	001-00
PROPOSED WORK: DRILL CONVERT DRILL DEED STIMULATE PLUG OFF OLD FORM OTHER PHYSICAL CH	PER REDRILL FRACTURE OR MATION PEFORATE NEW
PLUG AND ABANDON X CLEAN OUT AND RE	
TARGET FORMATION NEW RIVER AND POCAHONTAS COALS	ESTIMATED DEPTH 1,894'
WELL OPERATOR GEOMET OPERATING COMPANY, INC. DESIG	ENATED AGENT CT CORPORATION SYSTEM
ADDRESS 5336 STADIUM TRACE PARKWAY SUITE 206 ADDR	FSS 707 VA STDEET EAST
BIRMINGHAM, ALABAMA 35244	TOT VA. STREET EAST





STATE OF WEST VIRGINIA	DATEDECEMBER 26, 2013
DEPARTMENT OF ENVIRONMENTAL PROTECTION	OPERATOR'S WELL NO. ALAWEST 903- 004
OFFICE OF OIL AND GAS	WELL 47 - 047 - 01582C PRINT
WELL TYPE: OIL GAS X CBM LIQUID INJECTION (IF "GAS") PRODUCTION STORAGE DE	EP SHALLOW
LOCATION: ELEVATION 1,644.79' NORTHING 4145769.82 EAD DISTRICT SANDY RIVER WATER SQUADRANGLE IAEGER	SHED HARMAN BRANCH
SURFACE OWNER ALAWEST INC.	ACREAGE 21,930.23
CBM ROYALTY OWNER ALAWEST INC.  LEASE NO. WV-103-00	LEASE ACREAGE 21,930.23
PROPOSED WORK: DRILL CONVERT DRILL DEEP STIMULATE PLUG OFF OLD FORM OTHER PHYSICAL CH	ATION PEFORATE NEW
PLUG AND ABANDON X CLEAN OUT AND REI	PLUG
TARGET FORMATION NEW RIVER AND POCAHONTAS COALS	
WELL OPERATOR GEOMET OPERATING COMPANY, INC. DESIG	NATED AGENT CT CORPORATION SYSTEM
ADDRESS 5336 STADIUM TRACE PARKWAY SUITE 206 ADDR	
BIRMINGHAM, ALABAMA 35244	CHARLESTON, WV 25301

