

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

September 09, 2013

WELL WORK PERMIT

Vertical Well

This permit, API Well Number: 47-1706346, issued to KEY OIL COMPANY, 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.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

In addition to the applicable requirements of this permit, and the statutes and rules governing oil and gas activity in WV, this permit may contain specific conditions which must be followed. Permit conditions are attached to this cover letter.

Per 35CSR-4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926-0499 ext. 1654.

James Martin

Chief

Operator's Well No: TARGA/MAXWELL #14

Farm Name: MORRIS, I.L. API Well Number: 47-1706346

Permit Type: Vertical Well Date Issued: 09/09/2013

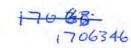
Promoting a healthy environment.

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. <u>Failure to adhere to the specified permit conditions may result in enforcement action</u>.

CONDITIONS

- 1. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code § 22-6-20, which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than fifty (50) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
- 2. Pursuant to 35 CSR § 4-19.1.a, at the request of the surface owner all water wells or springs within 1000 feet of the proposed well that are actually utilized for human consumption, domestic animals or other general use shall be sampled and analyzed.
- 3. Pursuant to 35 CSR § 4-19.1.c, if the operator is unable to sample and analyze any water well or spring within one thousand (1,000) feet of the permitted well location, the Office of Oil and Gas requires the operator to sample, at a minimum, one water well or spring located between one thousand (1,000) feet and two thousand (2,000) feet of the permitted well location.
- 4. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
- 5. 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.
- 6. During the surface casing and cementing process, in the event cement does not return to the surface, or any other casing string that is permitted to circulate cement to the surface and does not return to the surface, the oil and gas inspector shall be notified within twenty-four (24) hours.
- 7. Well work activities shall not constitute a hazard to the safety of persons.



STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF

DEPAR	RTMENT OF	<u>ENVIRONMENTAL PRO</u>	TECTION, C	FFICE OF	OIL AND	GAS	
		WELL WORK PERMIT	APPLICATI	ON	m (611	
				17	06	211	
1) Well Operator	KEY OIL	COMPANY	306347	DODD-	NEW	NEW	1
				RIDGE	MILTON	MILTON	
			Operator ID	County	District	Quadrangle	
2) Operator's Wel	l Number:	TARGA/MAXWELL #14		3)	Elevation	1129'	
4) Well Type: (a)	XliC	or Gas X					

5) Proposed Target For	mation(s): *SEI	E BELOW	Proposed Target Depth: 3000'
6) Proposed Total Dept	h: 3000'	Feet	Formation at Proposed Total Depth: GORDON

Deep____/ Shallow X

(b) If Gas: Production X / Underground Storage_

7) Approximate fresh water strata depths: ______158' 8) Approximate salt water depths: ______1388'

9) Approximate coal seam depths: NONE REPORTED ON DRILLERS LOGS

10) Does land contain coal seams tributary to active mine? NO

11) Describe proposed well work in detail DRILL, STIMULATE, PRODUCE

12) <u>CASING AND TUBING PROGRAM</u>

TYPE S	SPECIFIC	ATIONS		FOOTAGE	INTERVALS	<u>CEMENT</u>
	<u>Size</u>	<u>Grade</u>	Weight per ft	For Drilling	Left in Well	Fill -up (Cu. Ft.)
Conductor	11 3/4	ERW	42	35	0	
Fresh Water	9 5/8	ERW	29	210	210	75 SKS. CTS
Coal						
Intermediate	7	ERW	17	1029	1029	150 SKS. CTS
Production	4 1/2	J-55	10.5		2900	160 SKS.
Tubing						
Liners						:1/8

Packers: I

Kind

Sizes

Depths Set

^{**} BLUE MONDAY, KEENER, BIG INJUN, WEIR, GANTZ, GORDON

WW-2A (Rev. 6-07)

1). Date:	July 2	3 rd , 2013			
				GAIN	1AXWELL
2.) Operate	or's Wel	l Number		#1	14
		State	Count		Permit
2 \ A DI \Ma	II No ·	47-	017	_	

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE AND APPLICATION FOR A WELL WORK PERMIT

Subscribed and s	Telephone worn before me this 23 rd day of worn before me this 23 rd day of Expires November 16, 2022	304-269-7102 JULY , 2013 Notary Public
Subscribed and s	worn before me this 23 rd day of	JULY , 2013 2013
Subscribed and s		
Subscribed and a		
	Talanhana	204 260 7102
		WESTON, WV 26452
S S S S S S S S S S S S S S S S S S S	Smithburg, WV 26438 Address	22 GARTON PLAZA
) ELEGIVERALES	STATE OF WEST VIRGINIA Its:	PRESIDENT OF THE PRESID
CAR	KERRI LIPSCOMB By:	John Lypman
THE STATE OF THE S	OFFICIAL SEAL Well Operator	KEY DIL COMPANY
imprisonment.		
I am awa	are that there are significant penalties	s for submitting false information, including the possibility of fine and
application form a	and all attachments, and that based o believe that the information is true, ac	n my inquiry of those individuals immediately responsible for obtaining
I certify u	nder penalty of law that I have perso	nally examined and am familiar with the information submitted on this
issued under this	application.	
		d 35 CSR 4, and I agree to the terms and conditions of any permit
-	Publication (Notice of Publication	n attached)
-	Certified Mail (Postmarked posta	
application, a loca	etion plat, and accompanying docume Personal Service (Affidavit attac	
I certify t	hat as required under Chapter 22-6	of the West Virginia Code I have served copies of this notice and nts pages 1 through on the above named parties by:
Included is th		Article 6, Section 8(d) of the Code of West Virginia (see page 2)
OR		
Included is th	e lease or leases or other continuing	contract or contracts by which I hold the right to extract oil and gas
Cophone		MED ABOVE TAKE NOTICE THAT:
Telephone	304-932-8049	
4.48.0000000	MACFARLAN, WV 26148	Address
Address	4060 DUTCHMAN ROAD	Name
6) Inspector	DOUGLAS NEWLON	(c) Coal Lessee with Declaration
, , , , , , , , , , , , , , , , , , , ,		
Address		Address
(c) Name		Name
		. 1841.000
Addiess		Address
Address		Name
(b) Name	GLENVILLE, VVV 20331	(b) Coal Owner(s) with Declaration
(b) Name	GLENVILLE, WV 26351	Address
	P O BOX 397	
(a) Name Address (b) Name	I. L. MORRIS P O BOX 397	Name NONEAddress

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 Office 18/2013

WW-2A Surface Waiver

SURFACE OWNER WAIVER

County	DODDRIDGE	Operator	KEY OIL COMPANY
1. 1		Operator well number	TARGA/MAXWELL #14
	INSTRUCTIONS TO	SURFACE OWNERS NAMED ON	PAGE WW2-A
-			
the surface to appeared on the only owner valid for 24 m	ract is owned by more than thre the Sheriff's tax ticket on the land er who will actually receive these in nonths. If you do not own any ir if you know who it is. Also, please NOTE: YOU AR	ee persons, then these materials w or because you actually occupy the materials.) See Chapter 22 of the W	OMMENT.
Chief, Office of	of Oil and Gas		
Department o	f Environmental Protection		
601 57th St. S			
Charleston, W (304) 926-045			
		nts. The law requires these material	Is to be served on or before the date the
filed in person of the date. (have been condescribed in the control operator's nare the application operator's nare the control operator's nare the contro	or received in the mail by the Chicheck with your postmaster to en intacted by the well operator and these materials, then the permit manents must be in writing. Your me and well number and the apport. You may add other documents thief has the power to deny or continuous end occur to publicly ow the proposed well work will constitute amage would occur to publicly ow the proposed well work fails to prothe applicant has committed a subfit the rules promulgated under Change want a copy of the permit as it the Chief. of Water Testing Laboratories.	ief's office by the time stated above, sure adequate delivery time or to an you have signed a "voluntary statemay be issued at any time. comments must include your name, roximate location of the proposed we, such as sketches, maps or photogradition a well work permit based on coute a hazard to the safety of persons, and lands or resources; tect fresh water sources or supplies; estantial violation of a previous permit pater 22, and has failed to abate or set is issued or a copy of the order desired.	omments on the following grounds: It or a substantial violation of one or more eek review of the violation". Itenying the permit, you should request testing laboratories which you can hire to to obtain a copy.
I here			t I have received copies of a Notice and
Application fo order on Form therein.	r a Well Work Permit on Form W n WW2-B, a survey plat, and a soi	W2-A, and attachments consisting of l and erosion plan, all for proposed w	of pages 1 through including a work vell work on my surface land as described
		o the planned work described in thes	se materials, and I have no objection to a
	ssued on those materials. FION BY A NATURAL PERSON	FOR EXECU	JTION BY A CORPORATION, ETC.
118	Walder Dat	Name S	
(1/2)	Signature		
I.L.	Morris	Its desprotection	Date
	4-5-6	A Oil amentar	
Р	rint Name	Office of Oil and Case Protection Signature	Date
		"A Deb.	
			09/13/2013

77	U.S. Postal Service CERTIFIED MAIL, REGEIPT	The property of the state of the party of the
1 835	(Domestic Mail Only; No Insurance Coverage Provided) For delivery information visit our website at www.usps.com.	-
סלקל 5000 סבסב	Postage \$ 2,52 STON WV Corlifled Fee 3,10 Postmark Return Recoipt Fee (Endorsement Required) Restricted Delivery Fee (Endorsement Required) Total Postage & Fees \$	ANNA PLANCING SERVICE
707	Sired, Apt. No. PORIX 397 Targa 7,8,9,10 City, State 2174 (SIE NUTIE, W2635) (SEGOVERN GENERAL CONTROL OF THE SEGOVERN GENERAL	Carlo and the second se

COMPLETE THIS SECTION ON DELIVERY
A. Signature X Agent Addressee B. Received by (Printed Name) C. Date of Delivery 7-29-13 D. Is delivery address different from Item 17 If YES, enter delivery address below: The No
3. Service Type ☐ Certified Mail ☐ Express Mail ☐ Registered ☐ Return Receipt for Merchandise ☐ Insured Mail ☐ C.O.D.
4. Restricted Delivery? (Extra Fee) ☐ Yes
0 0002 7770 8355

Received Received Applied Appl

INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE Chapter 22, Article 6, Section 8(d) IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that -

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Grantor, lessor, etc.	Grantee, lessee, etc.	Royalty	Book/Page
PORTER MAXWELL	MICHAEL MURPHY	1/8	14/236
TARGA DEVELOPMENT, INC.	KEY OIL COMPANY	1/8	309/626
Recorded			

Acknowledgement of Possible Permitting/Approval In Addition to the Office of Oil and Gas

The permit applicant for the proposed well work addressed in this application hereby acknowledges the possibility of the need for permits and/or approvals from local, state, or federal entities in addition to the DEP, Office of Oil and Gas, including but not limited to the following:

- WV Division of Water and Waste Management
- WV Division of Natural Resources
- WV Division of Highways
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- County Floodplain Coordinator

The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be necessary and further affirms that all needed permits/approvals should be acquired from the appropriate authority before the affected activity is initiated.

Well Operator: KEY OIL COMPANY

By:Its:

PRESIDENT

Office of Oil and Gas Protection
Office of Oil and Gas Protection
Office of Oil and Gas
Oi

WW-2B1

Well No. TARGA/MAXWELL NO. 14

West Virginia Department of Environmental Protection Office of Oil and Gas

NOTICE TO SURFACE OWNERS

The well operator named below is preparing to file for a permit from the state to drill a new well. Before a well work permit can be filed with the Chief of the Office of Oil and Gas, the well operator is required to have given notice of the right to request water well or spring analytical testing. This notice shall be given to the owners or occupants of land which have a water well or spring being utilized for human consumption, domestic animals, or other general use and which is located within 1000 feet of the proposed well site.

With this form, the operator is giving you notice of your right to request analytical testing. The operator is required to sample and analyze the water wells or springs of all owners or occupants who request it. Therefore, if you wish to have your water well or spring tested, contact the operator named below.

All sampling shall be completed prior to drilling. Within thirty (30) days of the receipt of such sample analyses the operator shall submit the results to the Chief of the Office of Oil and Gas and to the owners or occupants who may have requested them.

If no water well or spring is located within 1000 feet, the Chief may require the operator to sample and analyze water from a water well or spring within 2000 feet of the proposed well site.

Be advised, you have the right to sample and analyze any water supply at your own expense.

The laboratory used by the operator to analyze the samples will be approved by the Chief. The operator named below has decided to use the following laboratory to analyze the water samples:

x Contractor Name	Reliance Laboratories, Inc.
Well operator's private laboratory	
Well Operator	Key Oil Company
Address	22 Garton Plaza
	Weston, WV 26452
Telephone	(304) 269-7102

FOR OPERATOR'S USE ONLY: Below, or on an attached page, list those persons which were given this notice. Place an asterisk beside the one(s) that contacted you and requested sampling and analyses. If there were no requests made, indicate by underling which one you have selected to sample and analyze. If there are no water wells or springs within 1000 feet of the proposed site please indicate such.

THERE APPEARS TO BE NO KNOWN WATER WELLS OR SPRINGS WITHENADO FEE OF THE PROPOSED WELL LOCATION

ANG 22 2013

ANG 201 and Gas protection

Office of Oil and Protection

Office of Oil 3/2013

WW Dept. of 13/2013

WW-9 Rev. 5/10

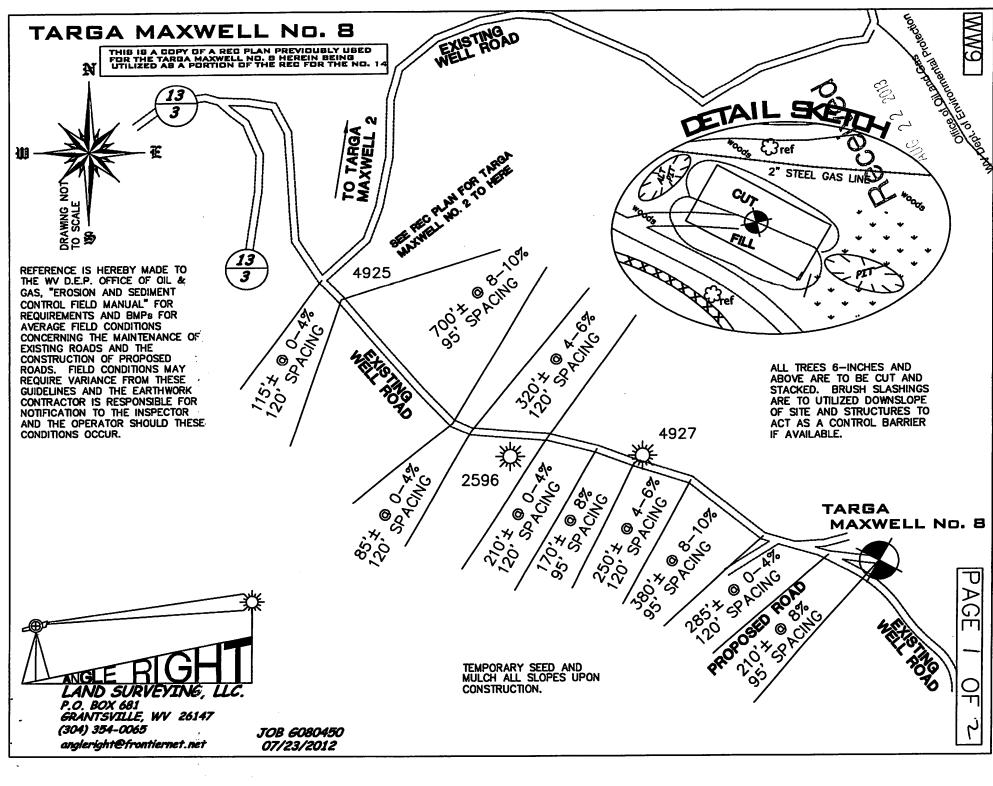
Pi	age	of		
API Number 47 -	017			
Operator's Well No.	TAR	GA/MAX	WELL NO.	14

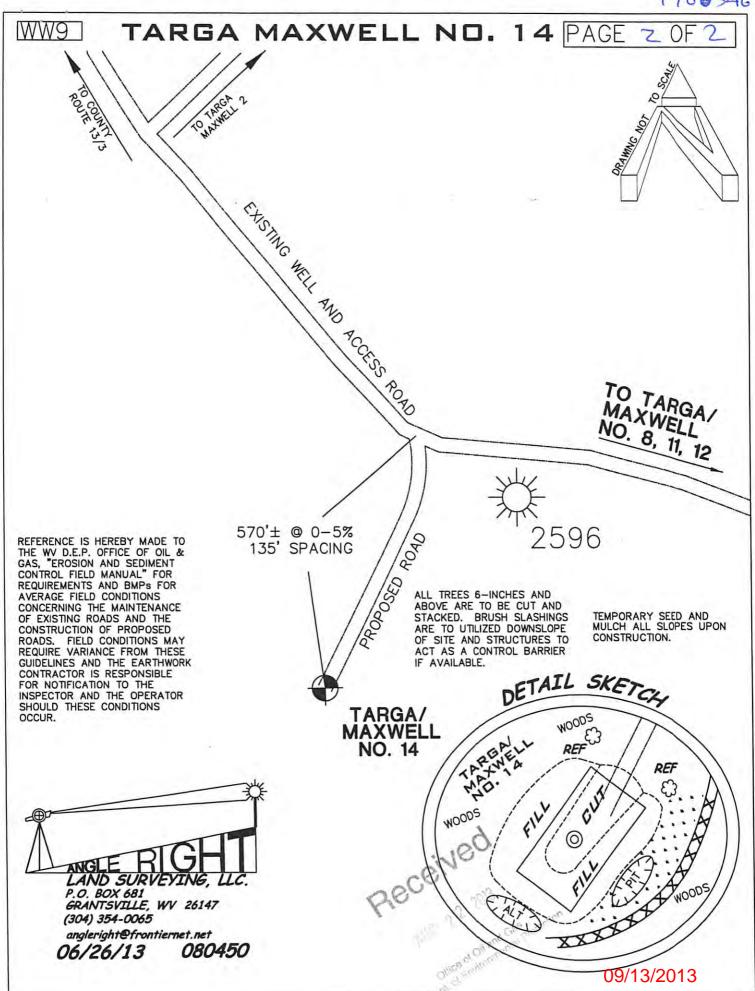
STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF OIL AND GAS

CONSTRUCTION AND RECLAMATION PLAN AND SITE REGISTRATION APPLICATION FORM GENERAL PERMIT FOR OIL AND GAS PIT WASTE DISCHARGE

Operator N	ame Key O	il Company		2000	OP Code	1 05 11 0 05
Watershed_	Lick Run			Quadrangle		New Milton 7.5'
Elevation	1,129'		County	Doddridge	District	New Milton
Description	of anticipated	Pit Waste: Dril	Water,	Frac Blow Back	& Various	Formation Cutting
o you ant	icipate using n	nore than 5,000 bb	ols of water to	o complete the proposed w	rell work? Yes	No XX
Vill a synt	hetic liner be u	sed in the pit?	yes	If so, what ml.?	6 mil. 2	DMIC.
Orilling m	edium anticipa	Reuse (at API N Off Site Disposa Other (Explain ted for this well?	Numberal (Supply fo	rm WW-9 for disposal loc	ation)	
		Charles and the second of the second	7 1 2 E	etc		
Additives	to be used?			1.00.1 1.0	ava in nit	
on August provisions law or reg applicatio obtaining penalties	1, 2005, by the of the permit ulation can lead certify under n form and a the information of the companity o	are enforceable to define the enforcement penalty of law to attachments the enforcement penalty of law to attachments the enforcement on, I believe that false information, entere	nd Gas of the by law. Viol action. hat I have perereted and the the information.	West Virginia Department ations of any term or con- ersonally examined and a at, based on my inquiry tion is true, accurate, and a possibility of fine or imp	t of Environmen dition of the ger m familiar with of those individing discomplete. I a	TER POLLUTION PERMI tal Protection. I understand neral permit and/or other ap the information submitted iduals immediately respon am aware that there are si
Company	Official (Typ	ed Name)				
Company	Official Title		President			:18
						- Deceive
Subscribe	ed and sworn b	efore me this	23 rd	day of July		ANG 35
My com	mission expire	nem	nente	16,2022	Notary	y Public
AT COM					THE STATE OF THE S	OFFICIAL-SEAL

North N Buildings Water wells Drill site	Pit: cut w	rails paceed fill walls Land Application of Pia Was	
Proposed Revegetation Treatment: Acres Disturbed	1.4±	Prevegetation pH	5.5
Fertilizer (10-20-20 or equivalent) 1/3 T Mulch HAY 2 Area I Seed Type lbs/acre	Tons/acre Seed Mixtures	Area II Seed Type	lbs/acre
KY-31 40		KY-31	40
ALSIKE CLOVER 5		ALSIKE CLOVER	5
		ANNUAL RYE	15
		ALSIKE CLOVER	5





PAGE OF WW9 TARGA/MAXWELL WELL NO. 14 Gas Well Right as Well Well SOIL Well "====aOil Well MAXWELL -30 Of Wall VELL NAME

DARGA/MAXWELL NO.14 **OPERATOR** TOPO SECTION ANGLE RIGHT LAND SURVEYING, LLC NEW MILTON 7.5' KEY OIL COMPANY PO BOX 681 GRANTSVILLE, WV 26147 22 GARTON PLAZA SCALE: (304) 354-0085 WESTON, WV 26452 06/26/2013 Office of Off and Gas Protection
Office of Off 2013/2013 1"=1000 080450

DESIGNATED AGENT JAN CHAPMAN

ADDRESS 22 GARTON PLAZA WESTON, WV 26452

WELL OPERATOR KEY OIL COMPANY

ADDRESS 22 GARTON PLAZA WESTON, WV 26452