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November 26, 2013

**VIA REGISTERED MAIL**  
**RETURN RECEIPT REQUESTED**

Pennsylvania Department of Environmental Protection  
Office of Oil and Gas Management  
Northwest Regional Office  
230 Chestnut Street  
Meadville, PA 16335

In Re: Hilcorp Application for Well Spacing Units

To Whom It May Concern:

Hilcorp Energy Company ("Hilcorp") originally filed its Application for Well Spacing Units (the "Application") on July 17, 2013 at the Department of Environmental Protection ("DEP") Meadville Office. On August 5, 2013, the DEP returned a copy of the Application to Hilcorp, asserting that it did not have the authority to act on the Application and that "[a]n application seeking an order for well spacing or drilling units must be submitted to the [Environmental Hearing Board ("EHB")]."

Hilcorp filed the Application with the EHB on August 26, 2013. On November 20, 2013, the EHB issued an order dismissing the Application, asserting that it lacked original jurisdiction to issue well spacing orders under the Oil and Gas Conservation Law, 58 P.S. §§ 401-419, and that the Application should be submitted to the DEP for its determination.

Enclosed is a time stamped copy of the Application originally filed with the DEP on July 17, 2013, and the \$1000.00 fee that the Conservation Law's regulations require to be submitted along with the Application. The DEP has retained the original, unbound, signed version of the Application to Hilcorp, including oversized exhibits.

Hilcorp hereby requests that the DEP make a final determination on the Application by January 6, 2013, within the 45 day time period established by the Conservation Law. Please direct any and all inquiries on this matter to me.

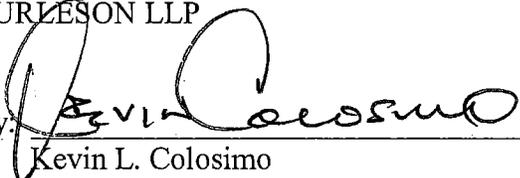
November 26, 2013

Page 2

Respectfully Submitted,

BURLESON LLP

By:



Kevin L. Colosimo

KLC:lmk  
Enclosure

cc: Michael Braymer, Esquire (via first class mail)  
Elizabeth Nolan, Esquire (via first class mail)  
Scott Perry, DEP (via first class mail)

COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS MANAGEMENT

In re the Matter of the Application of  
Hilcorp Energy Company for  
Well Spacing Units

Application Date: July 15, 2013

Pulaski Accumulation

*HEC 110-H Unit*

*HEC 111-H Unit*

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APPLICATION OF HILCORP ENERGY COMPANY  
FOR WELL SPACING UNITS

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**RECEIVED**

JUL 17 2013

Environmental Protection  
Northwest Regional Office

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Attorneys for Applicant  
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- Exhibit A Pulaski Accumulation Land Map
- Exhibit B Proposed HEC 110-H Unit
- Exhibit C Proposed HEC 111-H Unit
- Exhibit D Affidavit of Richard Winchester, Land Manager
- Exhibit E Affidavit of Kyle Koerber, Reservoir and Completion Engineer
- Exhibit F Affidavit of Nina Delano, Geologist
- Exhibit G Pulaski Accumulation Plat Indicating Longitude and Latitude on a Scale of 1,320 Feet to an Inch
- Exhibit H Pulaski Accumulation Surface Topography Map
- Exhibit I Schedule of Interested Parties in the Pulaski Accumulation to be Served Notice

**COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS MANAGEMENT**

In re the Matter of the Application of  
Hilcorp Energy Company for  
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Application Date: July 15, 2013

Pulaski Accumulation

*HEC 110-H Unit*

*HEC 111-H Unit*

**APPLICATION**

Pursuant to 58 Pa. Consol. Statutes Oil & Gas § 407, Hilcorp Energy Company (“Hilcorp”) hereby respectfully requests that the Pennsylvania Department of Environmental Protection (“DEP”)<sup>1</sup> issue an order establishing spacing units covering an underground reservoir underlying approximately 3,267 acres containing a common accumulation of natural gas in the Utica-Point Pleasant formation, approximately 7,400 feet below the surface and 3,800 feet below the Onondaga horizon, located in the Northwest corner of Lawrence County and the Southwest corner of Mercer County in Pulaski Township (hereinafter referred to as the “Pulaski Accumulation”). It is comprised of the existing Kinkela North Unit and Kinkela South Unit, together with the proposed HEC 110-H Unit and HEC 111-H Unit, which as a whole possess substantially similar thickness, porosity and organic content, including mobile hydrocarbon components, in contrast with surrounding portions of the Utica-Point Pleasant formation, which

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<sup>1</sup> The Pennsylvania General Assembly initially authorized the Oil and Gas Conservation Commission to execute and carry out the provisions of The Oil and Gas Conservation Law, 58 Pa. Consol. Statutes Oil & Gas § 401-419 (West 2010). The Commission was abolished and its powers and duties were transferred to the Department of Environmental Resources in 1971, 51 P.S. § 510-103(a), and to the Department of Environmental Protection by the Conservation and Natural Resources Act of 1995. 71 P.S. § 1340.503(a).

do not contain mobile hydrocarbon components in similar concentrations and do not communicate vertically or horizontally with the Pulaski Accumulation.

Hilcorp makes this request for the purpose of substantially increasing the ultimate recovery of oil and natural gas from the Pulaski Accumulation, consistent with the declared policy of the Commonwealth of Pennsylvania to encourage the development of oil and gas resources in the Commonwealth in such a manner that will prevent waste of oil and gas or loss in the ultimate recovery thereof and protect the correlative rights of all interest owners in the Pulaski Accumulation.

#### I. APPLICANT INFORMATION

Hilcorp Energy Company is a privately held oil and gas company that was established in 1989 and is based in Houston, Texas, and owns leasehold in the Commonwealth of Pennsylvania through its affiliate, Hilcorp Energy I, L.P., of which Hilcorp Energy Company is the General Partner.

Hilcorp has significant operations in Louisiana, Texas, Pennsylvania, Ohio and Alaska and operates more than 4,500 wells in the United States. From 2009 to 2010, Hilcorp acquired approximately 141,000 net acres in the Eagle Ford Shale trend in South Texas and drilled 90 wells establishing 32,000 BOE per day. To date, Hilcorp has leased more than 160,000 acres in the Utica and has drilled and completed 6 wells.

Both Hilcorp Energy Company and Hilcorp Energy I, L.P. are Texas companies with an address of 1201 Louisiana Ste. 1400, Houston, TX 77002. For the purposes of this application, the applicant is Hilcorp Energy Company.

## II. PROJECT DESCRIPTION

The Pulaski Accumulation is located in Pulaski Township, Lawrence and Mercer Counties, Pennsylvania, and underlays 258 tracts of land.<sup>2</sup> The total land area overlying the Pulaski Accumulation is approximately 3,267 acres. At the time of this application, Hilcorp has acquired the right to drill on and produce from 3,232.5833 acres in the Pulaski Accumulation.<sup>3</sup>

A discovery well, the Pulaski-Kinkela 1H Well, has been drilled into the Pulaski Accumulation (the "Discovery Well"), establishing it as a "pool" as required by 58 P.S. § 407.<sup>4</sup> Hilcorp seeks an order establishing a total of four (4) spacing units over the Pulaski Accumulation, which would include the existing voluntarily pooled units (the Kinkela North Unit and the Kinkela South Unit) on which existing wells, including the Discovery Well, are located, and two proposed units, the HEC 110-H Unit (containing 1,234.74 acres)<sup>5</sup> and HEC 111-H Unit (containing 1177.899 acres),<sup>6</sup> each of which represent the maximum area that can be efficiently and economically drained from a single well pad located on the unit.<sup>7</sup>

## III. AFFIDAVITS

The following testimony has been attached to this application supporting the establishment of spacing units over the Pulaski Accumulation: (1) Affidavit of Nina Delano, Geologist for Hilcorp Energy Company, establishing that the Pulaski Accumulation is a "pool," as required by 58 P.S. § 407;<sup>8</sup> (2) Affidavit of Kyle Koerber, Reservoir and Completion Engineer for Hilcorp Energy Company, establishing that the Pulaski Accumulation would be most efficiently drained from four well pads, one located on each the HEC 110-H Unit, the HEC 111-

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<sup>2</sup> See Exhibit A.

<sup>3</sup> See Affidavit of Richard Winchester, attached as Exhibit D.

<sup>4</sup> *Id.*

<sup>5</sup> See Exhibit B.

<sup>6</sup> See Exhibit C.

<sup>7</sup> See Affidavit of Kyle Koerber, attached as Exhibit E.

<sup>8</sup> See Affidavit of Nina Delano, attached as Exhibit F.

H Unit, the Kinkela North Unit, and the Kinkela South Unit,<sup>9</sup> and (3) Affidavit of Richard Winchester, Land Manager-New Ventures for Hilcorp, who exercises over-sight responsibility for land acquisitions in the Pulaski Accumulation, describing the project generally and the leasing efforts undertaken to acquire the oil and gas rights in the Pulaski Accumulation.<sup>10</sup>

#### IV. BACKGROUND: THE PROBLEM WITH THE RULE OF CAPTURE

The general purpose of forced pooling laws is to conserve oil and gas and to protect correlative rights by avoiding the harsh results and wasteful drilling practices that result from the application of the rule of capture. Bruce M. Kramer & Patrick H. Martin, *The Law of Pooling and Unitization* § 1.02 (3d 2008). The Supreme Court of Pennsylvania first recognized the rule of capture as it applies to natural gas in 1889 when it stated:

[Minerals] belong to the owner of the land, and are part of it, so long as they are on or in it, and are subject to his control; but when they escape, and go into other land, or come under another's control, the title of the former owner is gone. Possession of the land, therefore, is not necessarily possession of the gas. If an adjoining, or even a distant, owner, drills his own land, and taps your gas, so that it comes into his well and under his control, it is no longer yours, but his.

*Westmoreland & Cambria Natural Gas Co. v. DeWitt*, 130 Pa. 235, 249-50 (1889).

In *Barnard v. Monongahela Natural Gas. Co.*, 216 Pa. 362 (1907), the Court addressed a hypothetical landowner who drills a well near his neighbor's property from which he extracts gas underlying that neighbor's property. The Court recognized that the rule leads to waste, stating, "This may not be the best rule; but neither the Legislature nor our highest court has given us any better. No doubt many thousands of dollars have been expended 'in protecting lines' in oil and gas territory that would not have been expended if some rule had existed by which it could have

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<sup>9</sup> See Affidavit of Kyle Koerber, attached as Exhibit E.

<sup>10</sup> See Affidavit of Richard Winchester, attached as Exhibit D.

been avoided.” *Id.* The rule of capture still applies in Pennsylvania with reference to wells drilled only as deep as the Marcellus Shale.

## V. THE OIL AND GAS CONSERVATION LAW

The Pennsylvania legislature enacted The Oil and Gas Conservation Law, 58 Pa. Consol. Statutes Oil & Gas §§ 401-419 (West 2010) (hereinafter, the “Law”), in 1961 in order to address the problems arising from the application of the rule of capture. The Law, which applies only to wells that either penetrate the Onondaga horizon or are bottomed at least 3,800 feet below the surface, whichever is deeper, declares as an expressed policy of the Commonwealth of Pennsylvania that

[It is] in the public interest to foster, encourage, and promote the development, production, and utilization of the natural oil and gas resources in this Commonwealth, and especially those which may exist ... below the Onondaga horizon, in such manner as will encourage discovery, exploration, and development without waste; and to provide for the drilling, equipping, locating, spacing and operating of oil and gas wells so as to protect correlative rights and prevent waste of oil or gas or loss in the ultimate recovery thereof, and to regulate such operations so as to protect fully the rights of royalty owners and producers of oil and gas to the end that the people of the Commonwealth shall realize and enjoy the maximum benefit of these natural resources ...

The Law’s Declaration of Policy explains that it would be “impractical and detrimental to development” to impose new regulations to operations on formations lying above the Onondaga horizon since operations in shallower formations have been carried on continuously since the discovery of oil in 1850, current operations in shallow formations are being carried on “without appreciable waste,” and that methods for producing oil and gas from shallower formations differ from production methods for deeper formations “in cost, methods, operating problems, and other important characteristics.” Section 404 of the Law specifically prohibits waste in oil and gas operations carried out by wells penetrating the Onondaga horizon. 58 P.S. § 404.

The Law's regulations, promulgated in Chapter 79 of the Pennsylvania Code, define "correlative rights" as follows:

The rights of each owner of oil and gas interest in a common pool or source of supply of oil or gas to have a fair and reasonable opportunity to obtain and produce his just and equitable share of the oil and gas in the pool or sources of supply without being required to drill unnecessary wells or incur other unnecessary expense to recover or receive the oil or gas or its equivalent.

79 Pa. Code § 1.

The regulations define "waste" as follows:

(i) Physical waste as the term is generally understood in the oil and gas industry which includes the following:

(A) Permitting the migration of oil, gas or water from the stratum in which it is found to other strata if the migration would result in the loss of recoverable oil or gas, or both.

(B) The drowning with water of a stratum or part thereof capable of producing oil or gas in paying quantities except for secondary recovery purposes or in hydraulic fracturing or other completion practices.

(C) The unnecessary or excessive surface loss or destruction of oil or gas.

(D) The inefficient or improper use, or unnecessary dissipation of reservoir energy.

(ii) The drilling of more wells than are reasonably required to recover efficiently and economically the maximum amount of oil and gas from a pool.

79 Pa. Code § 1.

In order to achieve its purpose, the Law first requires a well to be drilled into the Onondaga horizon, which requires a permit. 58 P.S. § 406 (a). Then, that well's operator or any other operator of lands "directly and immediately affected" by the drilling of the well, or subsequent wells in the common oil or gas pool, may file a well spacing application. 58 P.S. § 407(1). The term "operator" as defined by the Law includes both oil and gas lessees and any

unleased owner of oil and gas rights in a pool, as to a 7/8 interest. 58 P.S. § 402 (7). An unleased owner of oil and gas rights in the pool is a royalty owner as to a 1/8 interest. *Id.*

## VI. THE DEP SHOULD ESTABLISH WELL SPACING UNITS OVER THE PULASKI ACCUMULATION

### A. Legal Standard

The Law requires the DEP, in order to carry out the Law's purpose, to enter an order establishing well spacing and drilling units upon proper application, notice to interest holders in the units, and after a hearing. 58 P.S. § 407. Before the DEP may enter an order establishing spacing units, a well must be drilled into a formation covered by the Law, establishing a "pool." *Id.* The Law defines a "pool" as "an underground reservoir containing a common accumulation of oil or gas, or both, not in communication laterally or vertically with any other accumulation of oil or gas." 58 P.S. § 402 (10). The operator of the well establishing the pool, or any operator of lands "directly and immediately affected by the drilling" of that well, or subsequent wells in the pool, may file an application for well spacing units with the DEP. 58 P.S. § 407 (1).

The application must (1) specify the producing horizon in the pool sought to be spaced, including the depth of the discovery well drilled into the pool, (2) include a plat "indicating the longitude and latitude of each well drilled to the pool sought to be spaced, and the area proposed to be included within the spacing order on a scale of 1,320 feet to an inch," (3) specify the size of the spacing unit recommended, and (4) indicate whether wells in the field are producing oil, gas or both, and the ratio of oil to gas produced if wells are producing both. 79 Pa. Code § 21 (a). The applicant has the option to include (1) a mapping showing the area to be included in each spacing unit in the area covered by the spacing order, (2) information regarding surface topography in the area to be covered by the spacing order, and (3) information regarding reservoir characteristics. 79 Pa. Code § 21 (a). No more than 10 square miles may be included in

any single application for a spacing order. *Id.* In addition, the DEP has the power to require the applicant to attach any additional information it deems relevant to the application. *Id.*

The order establishing spacing units must establish and specify the size and shape of the spacing units. 58 P.S. § 407 (4). The units must not be smaller than the maximum area that can be efficiently and economically drained by one well. *Id.* If the maximum drainable area cannot be determined at the time of the hearing, temporary units for orderly development of the pool must be created pending the determination of the most efficient and economic drainable area. *Id.* Generally, units must be of uniform size and shape for the entire pool. 58 P.S. § 407 (5). The DEP has the power to vary the size and shape of any individual unit in order to (1) take in to account wells already completed at the time the application is filed, or (2) to make a unit conform to oil and gas property lines, provided that units formed by the DEP conform to the area which will be drained by the well located within the area permitted by the order, and the acreage included in each unit is contiguous. *Id.*

The order must also specify the minimum distance from the nearest boundary of the spacing unit at which a well may be drilled. 58 P.S. § 407 (6). The distance provided must be the same for all units established by the order with necessary exceptions for wells drilled or drilling at the time of the filing of the application. *Id.*

After proper notice and a hearing, the DEP must either enter an order establishing spacing units covering all lands "determined or believed to be underlain by" the common pool or enter an order dismissing the application within forty five days of the filing of this application. 58 P.S. § 407 (4) & (7). The well spacing order must cover all lands determined or believed to be underlain by the pool, and may be modified from time-to-time in order to fully and accurately

encompass the pool and to permit the drilling of additional wells in a uniform pattern at a uniform minimum distance from the nearest unit boundary. *Id.*

After the date of the notice of the hearing for a well spacing order, no additional well may be commenced in the pool until the spacing order is issued, unless authorized by the DEP. 58 P.S. § 407 (8). If a permit to drill is refused because of a pending spacing order application, and a well on property adjoining a leased tract in the proposed spacing unit is draining the oil and/or gas from the leased tract, the DEP has the power to shut-in the well, after notice and a hearing, if necessary to protect correlative rights, until the applicant has the opportunity to obtain a spacing order. 58 P.S. § 407 (9).

B. Hilcorp's Application Meets This Standard

i. *The Pulaski Accumulation is a "Pool"*

The Pulaski Accumulation is an underground reservoir underlying approximately 3,267 acres containing a common accumulation of natural gas in the Utica-Point Pleasant formation, approximately 7,400 feet below the surface and 3,800 feet below the Onondaga horizon, located in the Northwest corner of Lawrence County and the Southwest corner of Mercer County in Pulaski Township. It is comprised of the existing Kinkela North Unit and Kinkela South Unit, together with the proposed HEC 110-H Unit and HEC 111-H Unit, which as a whole possesses substantially similar thickness, porosity and organic content, including mobile hydrocarbon components, in contrast with surrounding portions of the Utica-Point Pleasant formation, which do not contain mobile hydrocarbon components in similar concentrations and do not communicate vertically or horizontally with the Pulaski Accumulation.

ii. *Existing Wells in the Pulaski Accumulation are Drilled to Such a Depth as to Bring It Under the Jurisdiction of the Law*

The Pulaski Accumulation is located at a depth of 7,400 feet below the surface and 3,800 feet below the Onondaga horizon.<sup>11</sup> The Discovery Well producing from the Pulaski Accumulation is drilled to a maximum true vertical depth of 7,514 feet below the surface and 3,800 feet below the Onondaga horizon.<sup>12</sup>

iii. *The Existing Wells "Directly and Immediately" Affect Hilcorp*

Hilcorp is the operator of the existing wells in the Pulaski Accumulation and has acquired the oil and gas rights as to 99% of the acreage contained in the Pulaski Accumulation (3,232.5833 acres out of 3,267.4778 acres).<sup>13</sup> Hilcorp's extensive interest in the oil and gas contained in the Pulaski Accumulation, along with the assets expended to obtain those interests and to drill the existing wells render Hilcorp a party that is directly and immediately affected by those wells. Therefore, Hilcorp is a proper party to apply to the DEP for a well spacing order.

iv. *The Proposed Units Represent the Maximum Area that Can Be Efficiently and Economically Drained from a Single Well Pad*

The Utica-Point Pleasant formation lacks sufficient permeability to be drained using a conventional vertical well.<sup>14</sup> Any drainage area that could be accessed by a conventional vertical well would not be large enough to achieve production in economically feasible quantities.<sup>15</sup> Using horizontal well technology coupled with hydraulic stimulation drastically improves production relative to vertical wells or horizontal unstimulated wells.<sup>16</sup> The oil and gas within the two proposed units, the HEC 110-H Unit and the HEC 111-H Unit, could not be drained from a

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<sup>11</sup> See Affidavit of Nina Delano, attached as Exhibit F.

<sup>12</sup> *Id.*

<sup>13</sup> See Affidavit of Richard Winchester, attached as Exhibit D.

<sup>14</sup> See Affidavit of Kyle Koerber, attached as Exhibit E.

<sup>15</sup> *Id.*

<sup>16</sup> *Id.*

single well pad.<sup>17</sup> The distance across the two combined units makes it mechanically impossible to drain from a single well pad.<sup>18</sup> Accordingly, the HEC 110-H Unit and the HEC 111-H Unit each represent the maximum area that can be efficiently and economically drained from a single well pad.

v. *This Application Meets All Requirements of 58 P.S. § 407*

This application establishes that a Discovery Well has been drilled into the Pulaski Accumulation, which is located at a depth of 7,400 feet below the surface and 3,800 feet below the Onondaga horizon, establishing it as a "pool" for the purposes of the Law.<sup>19</sup> The two well spacing units proposed in this application are of approximately uniform size and shape, and represent the maximum area that can be efficiently and economically drained from a single well pad. The proposed units, together with the existing, voluntarily formed units in the Pulaski Accumulation, encompass the entirety of the Pulaski Accumulation.<sup>20</sup>

This application includes a plat indicating the longitude and latitude of the Pulaski Accumulation and of each well drilled into it, on a scale of 1,320 feet to an inch.<sup>21</sup> This application also includes a land map of the Pulaski Accumulation,<sup>22</sup> and of the proposed HEC 110-H Unit<sup>23</sup> and the HEC 111-H Unit,<sup>24</sup> showing the recommended size and shape of each unit, which is based on the maximum area that may be efficiently and economically drained from a single well pad. The Discovery Well drilled into the Pulaski Accumulation is producing both gas and oil, at a ratio of 55,800 SCF/BBL.<sup>25</sup>

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<sup>17</sup> *Id.*

<sup>18</sup> *Id.*

<sup>19</sup> See the Affidavit of Nina Delano, attached as Exhibit F.

<sup>20</sup> See the Affidavit of Kyle Koerber, attached as Exhibit E.

<sup>21</sup> See Exhibit G.

<sup>22</sup> See Exhibit A.

<sup>23</sup> See Exhibit B.

<sup>24</sup> See Exhibit C.

<sup>25</sup> See the Affidavit of Kyle Koerber, attached as Exhibit E.

In addition, this application includes a map showing the surface topography overlying the Pulaski Accumulation.<sup>26</sup> It also includes information regarding reservoir characteristics for the Pulaski Accumulation.<sup>27</sup> Finally, this application is accompanied by a fee of \$1000, as required by 79 Pa. Code § 21 (d).

vi. *A Well Spacing Order for the Pulaski Accumulation Would Further the Purpose of the Law.*

A well spacing order for the Pulaski Accumulation would protect the correlative rights of all of the interest holders in the "pool" and prevent waste. By establishing spacing units over the Pulaski Accumulation that represent the maximum area that can be efficiently and economically drained from a single well pad, each owner of oil and gas interests in the Pulaski Accumulation will have a fair and reasonable opportunity to obtain his or her just and equitable share of the proceeds from oil and gas production without drilling unnecessary wells or incurring other unnecessary expenses. Due to the existence of non-consenting landowners at the center of each proposed unit, the possibility of over drilling exists in the absence of a well spacing order. Over drilling leads to waste, in the form of unnecessary surface loss and the inefficient use and unnecessary dissipation of reservoir energy.

## VII. HEARING

Within forty five days of the filing of this application, the DEP must set a date for a hearing on the application, provide notice of the application and hearing to anyone with an interest in land which may be affected by the proposed well spacing order, and either enter an order establishing spacing units or entering an order dismissing the application. 58 P.S. § 407(4). The Law requires the DEP to provide notice of the hearing for two successive weeks in a newspaper of general circulation in the county where any land which may be affected by the

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<sup>26</sup> See Exhibit H.

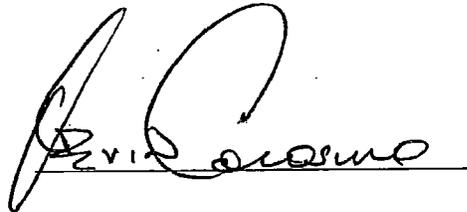
<sup>27</sup> See the Affidavit of Nina Delano, attached as Exhibit F.

order is located, and requires the DEP to mail notice to the persons specified in Exhibit I. 58 P.S. § 407(2). The publication and mailing of notice must be carried out at least 15 days prior to the date fixed for the hearing. *Id.*

#### VIII. CONCLUSION

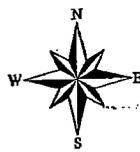
The Law requires the DEP, in order to carry out the Law's purpose, to enter an order establishing well spacing and drilling units upon proper application, notice to interest holders in the units, and after a hearing. 58 P.S. § 407(4). Hilcorp respectfully submits that this application meets this standard. Hilcorp therefore asks the DEP to issue an order establishing spacing units as proposed above over the Pulaski Accumulation.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Kevin Colosimo", written over a horizontal line.

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Attorneys for Applicant  
Hilcorp Energy Company



Trumbull

Mercer

PULASKI-KINKELA North

Ohio

Pennsylvania

Mahoning

PULASKI-KINKELA South

Lawrence

**Legend**

**Unit**

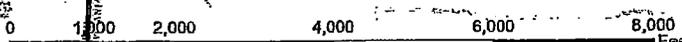
- HEC Unit
- Third Party
- HEC Drilled
- Unleased
- HEC Unit

**EXHIBIT**

tabbles

A

1 inch = 1,000 feet



Feeds: Esri, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Beijing) and the GIS User Community



Mercer

Ohio

Mahoning

Pennsylvania

Lawrence

**Legend**

▲ Proposed Well Site

□ 330' Buffer

**Unit**

□ Unit

— Proposed Wellbores

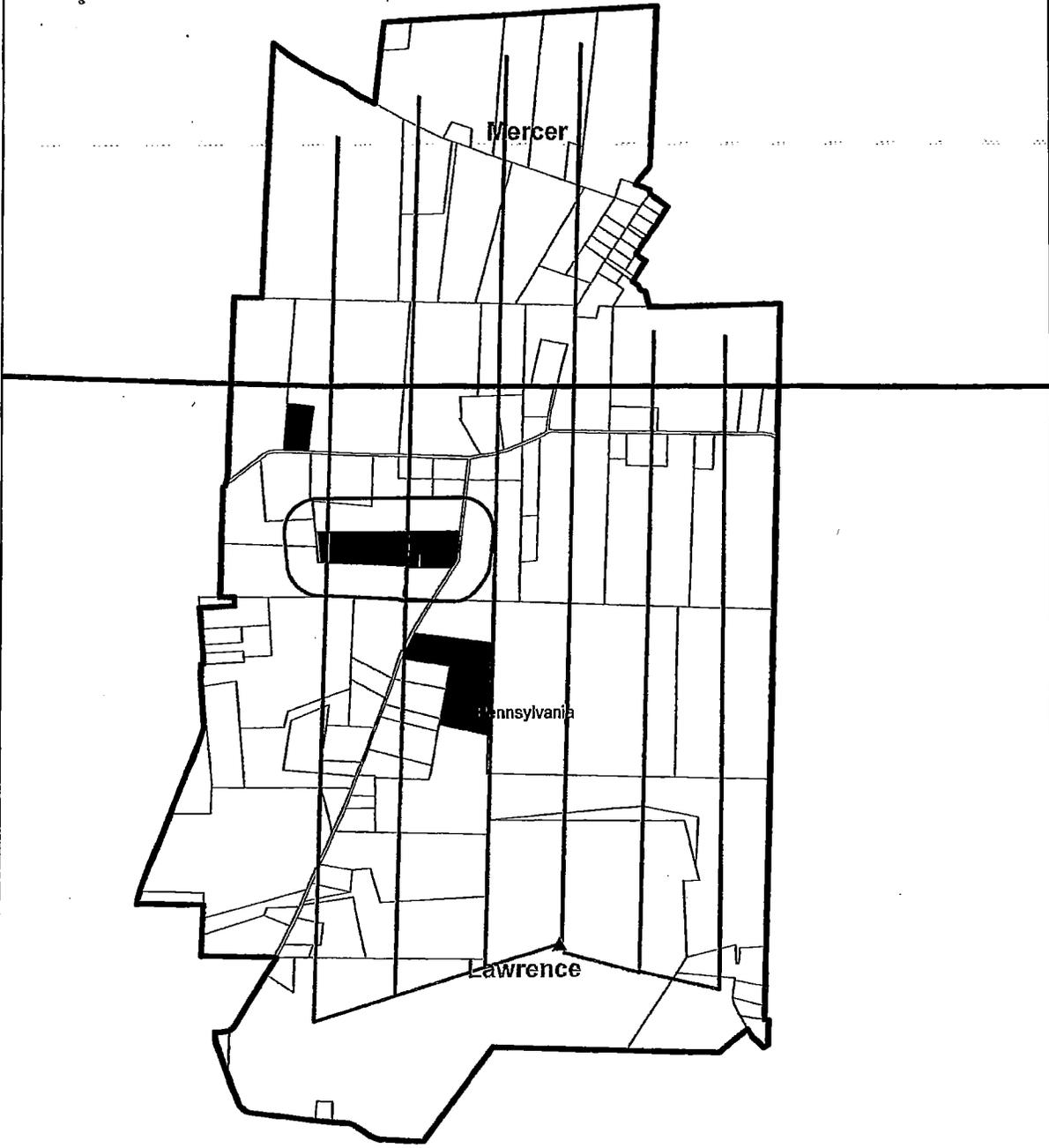
■ Unleased

0 625 1,250 2,500 3,750 5,000 Feet

**EXHIBIT**

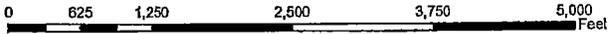
tabbies

B



**Legend**

- ▲ Proposed Well Site
- ▭ 330' Buffer
- Name**
- ▭ Unit
- ▭ Third Party
- Name**
- Proposed Wellbore
- ▭ Unleased



**EXHIBIT**

C

tabbles'

1 inch = 1,000 feet

COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS MANAGEMENT

In re the Matter of the Application of  
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*HEC 111-H Unit*

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AFFIDAVIT OF RICHARD WINCHESTER IN SUPPORT OF THE APPLICATION OF  
HILCORP ENERGY COMPANY FOR WELL SPACING UNITS

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Kevin Colosimo (PA Bar # 80191)  
Daniel P. Craig (PA Bar # 312238 )  
Burleson LLP  
501 Corporate Drive, Suite 105  
Canonsburg, Pennsylvania 15317

Attorneys for Applicant  
Hilcorp Energy Company

{00279358.1}



## AFFIDAVIT

I, Richard Winchester, of 20114 Tilstock Dr., Katy, Texas 77450, being duly sworn according to law, depose that the following facts are true and accurate based on my own personal knowledge, education and professional experience:

- (1) I work for Hilcorp Energy Company as Land Manager – New Ventures, and have worked at Hilcorp since June 13, 2005 in various capacities, including Division Landman and Business Development Manager.
- (2) My responsibilities include managing the lease acquisition process, including lease acquisitions through land brokerage services, negotiating leases directly with mineral interest owners and landowner groups, negotiating 3<sup>rd</sup> party acquisitions and managing the due diligence process for such acquisitions, and lease trades with industry competitors.
- (3) I earned a B.B.A. in Petroleum Land Management from the University of Oklahoma in 1989, and an M.B.A. from the University of Oklahoma in 2005.
- (4) I am a member of the American Association of Professional Landmen, and other regional associations of professional landmen
- (5) My experience in the accumulation of hydrocarbons referred to in the Application of Hilcorp Energy Company for Well Spacing as the Pulaski Accumulation and its four units, the existing Pulaski-Kinkela North Unit and Pulaski-Kinkela South Unit, and the proposed HEC 110-H Unit and HEC 111-H Unit, includes acquiring leases through several Mt. Jackson landowner groups, and lease trades with industry competitors.
- (6) In total, the Pulaski Accumulation contains 258 separate tracts of land covering approximately 3,267 acres.
- (7) The existing Pulaski-Kinkela South Unit contains 45 separate tracts of land covering 614.4668 acres.
- (8) The existing Pulaski-Kinkela North Unit contains 24 separate tracts of land covering 240.3820 acres.
- (9) The proposed HEC 110-H Unit contains 116 separate tracts of land covering 1234.743 acres.
- (10) The proposed HEC 111-H Unit contains 73 separate tracts of land covering 1177.899 acres.

Further Affiant Sayeth Not.

Affiant:

Richard Winchester

Richard Winchester  
Land Manager, New Ventures  
Hilcorp Energy Company

Date: 07/15/2013

Subscribed and sworn before me this 15<sup>th</sup> day of July, 2013.

Chantelle Messa Labbe  
(Notary Public)

My Commission expires: 02/02/2015

ACKNOWLEDGMENT

State of Texas  
County of Harris

On this the 15<sup>th</sup> day of July, 2013, before me a Notary Public, the undersigned officer, personally appeared Richard C. Winchester known to me to be the person whose name is subscribed to the within instrument and acknowledged that she executed the same for the purposes contained therein.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

Chantelle Messa Labbe  
(Notary Public)

SEAL.

My commission expires:



COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS MANAGEMENT

In re the Matter of the Application of :  
Hilcorp Energy Company for :  
Well Spacing Units :

Application Date: July 15, 2013

Pulaski Accumulation :  
*HEC 110-H Unit* :  
*HEC 111-H Unit* :

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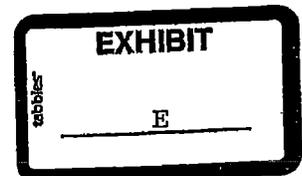
AFFIDAVIT OF KYLE KOERBER IN SUPPORT OF THE APPLICATION OF  
HILCORP ENERGY COMPANY FOR WELL SPACING UNITS

---

Kevin Colosimo (PA Bar # 80191)  
Daniel P. Craig (PA Bar # 312238)  
Burleson LLP  
501 Corporate Drive, Suite 105  
Canonsburg, Pennsylvania 15317

Attorneys for Applicant  
Hilcorp Energy Company

{00276880.1}



## AFFIDAVIT

I, Kyle Koerber, of 5567 Bright Timber Landing Drive Spring, TX 77386, being duly sworn according to law, depose that the following facts are true and accurate based on my own personal knowledge, education and professional experience:

- (1) I work for Hilcorp Energy Company as a Reservoir and Completion Engineer. In total, I have worked for Hilcorp Energy Company for one year as a drilling engineer, three years as a reservoir engineer, and three years as a completions and operations engineer.
- (2) My responsibilities include making recommendations for completion design, reserve calculations, development strategies, and project economics.
- (3) I earned a B.S. in Petroleum Engineering from the University of Texas in 2006.
- (4) I have been a member of the Society of Petroleum Engineers for ten years.
- (5) I have reviewed wireline well log data, core data, seismic data, aeromagnetic data, microseismic data, stimulation designs and reservoir quality analyses from the accumulation of hydrocarbons referred to in the Application of Hilcorp Energy Company for Well Spacing as the Pulaski Accumulation, and for analog formations including both other Utica/Point Pleasant formation data and Eagleford formation data
- (6) I have reviewed maps prepared by Hilcorp geologists from public well logs and recently drilled Hilcorp Energy Company well logs tracing the thickness of the Utica and Point Pleasant shales over the Pulaski Accumulation, along with production data from analog tight rock shale plays.
- (7) My experience in the Pulaski Accumulation includes analyzing production from the Kinkela pad and creating a development plan for the existing Pulaski-Kinkela North Unit and Pulaski-Kinkela South Unit, and the proposed HEC 110-H Unit and HEC 111-H Unit.
- (8) The only well currently producing in the Pulaski Accumulation is the Pulaski-Kinkela 1H Well. It is producing both oil and gas at ratio of 55,800 standard cubic feet of gas per barrel of oil (SCF/BBL).
- (9) Based upon this data and mapping and on my education and professional experience, it is my opinion that the most efficient and economic method for draining the oil and gas from the Pulaski Accumulation is through horizontal drilling and hydraulic fracturing unit operations in the HEC 110-H Unit and the HEC 111-H Unit, each of which represents the maximum area that may be efficiently and economically drained from a single well pad, and that the drainage areas of wells drilled into the proposed units will be completely within the boundaries of the Pulaski Accumulation, meaning that no drainage would occur from outside of the defined areas, either laterally or vertically.

(10) I arrived at this opinion based upon the following factors and analysis:

- o The Utica/Point Pleasant formation lacks sufficient permeability to be drained using a conventional vertical well. Any drainage area that could be accessed by a conventional vertical well would not be large enough to achieve production in economically feasible quantities.
- o Using horizontal well technology coupled with hydraulic stimulation drastically improves production relative to vertical wells or horizontal unstimulated wells.
- o The oil and gas within the two proposed units could not be drained from a single well pad. The distance across the two combined units makes it mechanically impossible to drain from a single well pad.

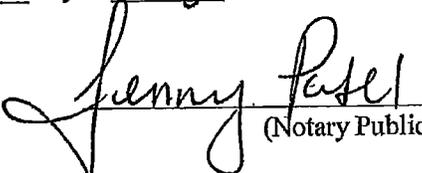
Further Affiant Sayeth Not.

Affiant:

  
\_\_\_\_\_  
Kyle Koerber  
Reservoir and Completion Engineer  
Hilcorp Energy Company

Date: 7-15-2013

Subscribed and sworn before me this 15<sup>th</sup> day of July, 2013.

  
\_\_\_\_\_  
(Notary Public)

My Commission expires: March 16, 2016



{00276880.1}

ACKNOWLEDGMENT

State of TX  
County of HARRIS

On this the 15<sup>th</sup> day of July 2013, before me a Notary Public, the undersigned officer, personally appeared Kyle Koerber known to me to be the person whose name is subscribed to the within instrument and acknowledged that he executed the same for the purposes contained therein.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

SEAL.

My commission expires:

March 14, 2016

Jenny Patel

(Notary Public)



COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS MANAGEMENT

In re the Matter of the Application of ..... :  
Hilcorp Energy Company for :  
Well Spacing Units : Application Date: July 15, 2013  
:  
Pulaski Accumulation :  
HEC 110-H Unit :  
HEC 111-H Unit :

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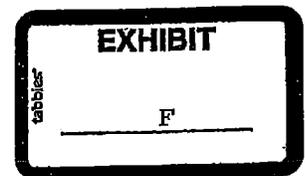
AFFIDAVIT OF NINA DELANO IN SUPPORT OF THE APPLICATION OF  
HILCORP ENERGY COMPANY FOR WELL SPACING UNITS

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Kevin Colosimo (PA Bar # 80191)  
Daniel P. Craig (PA Bar # 312238)  
Burleson LLP  
501 Corporate Drive, Suite 105  
Canonsburg, Pennsylvania 15317

Attorneys for Applicant  
Hilcorp Energy Company

{00276879.1}



## AFFIDAVIT

I, Nina Delano, of 1201 Louisiana, Suite 1400, Houston, TX 77002, being duly sworn according to law, depose that the following facts are true and accurate based on my own personal knowledge, education and professional experience:

- (1) I have worked as a geologist for Hilcorp Energy Company for two years. I first worked as a geologist on the Eagle Ford team and have been working as a geologist on the Northeast US Team for the past year and a half. Prior to this, I worked as a geologist at Weatherford Laboratories, where I performed integrated studies on depositional environments of sandstones, limestones, and shales using whole-core, thin-section, and log analysis, geochemistry, x-ray diffraction data, and permeability and porosity data.
- (2) My responsibilities at Hilcorp Energy Company include designing directional drilling programs in the Utica/Point Pleasant, evaluating wireline log data and core analysis, creating regional maps and cross sections used to evaluate the Utica/Point Pleasant geology, and geosteering.
- (3) I earned a Bachelor of Arts degree in Geology in 2008 from Colby College in Waterville, ME.
- (4) I am a member of the American Association of Petroleum Geologists (AAPG), the Society of Independent Professional Earth Scientists (SIPES), and the Houston Geological Society (HGS).
- (5) I have reviewed wireline well log data, core data, and reservoir quality analyses from the accumulation of hydrocarbons referred to in the Application of Hilcorp Energy Company for Well Spacing as the Pulaski Accumulation.
- (6) I have extensive experience working in the Pulaski Accumulation. I have created a geological prognosis (estimation of formation tops from shallow to deep formations, using log analysis) and built horizontal well plans for the HEC 110-H Unit. I have created a geological prognosis for the HEC 111-H Unit. I created a geological prognosis, created directional plans, and geosteered the Pulaski-Kinkela 4H well in the Pulaski-Kinkela North Unit, the Pulaski-Kinkela 1H well and Pulaski-Kinkela 2H well in the Pulaski-Kinkela South Unit, and have created a geological prognosis and directional plans for the Pulaski-Kinkela 3H well in the Pulaski-Kinkela South Unit.
- (7) The proposed wells will reach a true vertical depth of approximately 7,400 feet below the surface and approximately 3,800 feet below the top of the Onondaga horizon.
- (8) The only existing well that is producing from the Pulaski Accumulation is the Pulaski-Kinkela 1H Well, which is drilled to a true vertical depth of 7,514 feet below the surface and is producing from the Utica/Point Pleasant formation.

- (9) I have reviewed maps prepared by myself and other Hilcorp geologists from public well logs and wireline logs from recently drilled Hilcorp Energy Company wells tracing the thickness of the Utica and Point Pleasant shales over the Pulaski Accumulation.
- (10) Based upon this data and mapping and on my education and professional experience, it is my opinion that the Pulaski Accumulation is an underground reservoir containing a common accumulation of mobile hydrocarbon components that are not in communication laterally or vertically with other accumulations of mobile hydrocarbon components outside of the Pulaski Accumulation.
- (11) I arrived at this opinion based upon the following factors and analysis:
- o Geologic mapping indicates similar thickness, porosity, and organic content in the Utica/Point Pleasant formation within the Pulaski Accumulation, suggesting that one portion of the Pulaski Accumulation would be geologically equivalent to another portion of the Pulaski Accumulation.
  - o Based on production and microseismic data, I have concluded that the Utica/Point Pleasant formation in the Pulaski Accumulation includes mobile hydrocarbon components with which surrounding portions of the Utica/Point Pleasant formation outside of the comprised units are not in communication.

Further Affiant Sayeth Not.

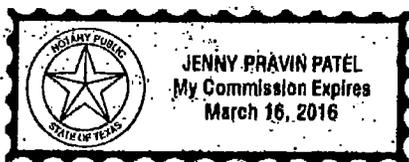
Affiant:

Nina Delano

Nina Delano, Geologist  
Hilcorp Energy Company

Date: 7/12/2013

Subscribed and sworn before me this 12<sup>th</sup> day of July, 2013.



Jenny Pravin Patel  
(Notary Public)

My Commission expires: March 16, 2016.

**ACKNOWLEDGMENT**

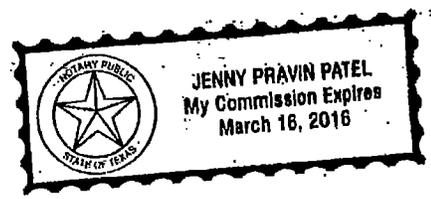
State of Tx  
County of Harris

On this the 12<sup>th</sup> day of July 2013, before me a Notary Public, the undersigned officer, personally appeared Nina Delano known to me to be the person whose name is subscribed to the within instrument and acknowledged that she executed the same for the purposes contained therein.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

Jenny Patel  
(Notary Public)

SEAL.  
My commission expires: March 16, 2016.



Pulaski Accumulation  
 Hilcorp Energy Company  
 Pulaski Township  
 Lawrence County, PA

Trumbull

Mercer

Ohio

HEC 110-H

HEC 111-H

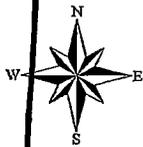
Pennsylvania

PULASKI-KINKELA North

PULASKI-KINKELA South

Mahoning

Lawrence



**Legend**

- XY's
- Proposed Units
- Third Party
- HEC Drilled
- Unleased
- HEC Unit

1 inch = 1,320 feet



Label	X	Y
0	1251097.42	361957.12
1	1247874.34	348250.06
2	1250634.16	347586.86
3	1248060.93	354136.03
4	1248076.67	354146.38
5	1248082.39	354577.85
6	1247909.13	354803.24
7	1247622.76	354577.17
8	1245338.99	354644.19
9	1244645.11	353720.02
10	1244206.21	353736.18
11	1243907.53	353897.08
12	1242844.51	354026.61
13	1242786.86	354078.29
14	1242543.49	354707.82
15	1242563.30	354809.11
16	1242677.90	354823.50
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18	1242388.28	355582.13
19	1242410.89	356066.71
20	1241732.42	356077.03
21	1241509.06	354393.12
22	1241506.27	354345.35
23	1241515.53	352766.49
24	1241061.36	352782.54
25	1241059.70	352754.97
26	1240484.89	352613.18
27	1240430.80	352718.62
28	1239974.94	352507.72
29	1239732.41	352987.12
30	1239689.96	352984.57
31	1236958.36	353037.51
32	1237312.02	363549.79
33	1239888.92	363553.77
34	1239886.57	362690.13
35	1242993.06	362578.75
36	1243079.03	364577.88
37	1244110.48	363978.29
38	1244201.91	364780.61
39	1246974.36	364920.49
40	1248907.06	363333.14
41	1246758.55	363156.22
42	1246910.05	363099.38
43	1246908.67	363062.46
44	1247086.55	362927.47
45	1246764.62	362462.00
46	1246866.30	362392.66
47	1246730.78	362193.18
48	1246794.78	362148.78
49	1246805.69	362118.49
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51	1246860.49	362094.30
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57	1250887.36	359508.38
58	1251037.58	359496.37
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60	1250850.97	358459.39
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62	1250868.61	354724.94
63	1250568.68	349654.00
64	1250580.53	349575.87
65	1250639.42	349511.03
66	1250672.41	349417.48

**EXHIBIT**

tabbies

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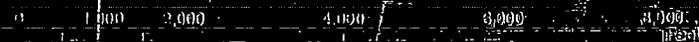


**Legend**

- Proposed Units
- Third Party
- HEC Drilled
- Unleased
- HEC Unit

**EXHIBIT**

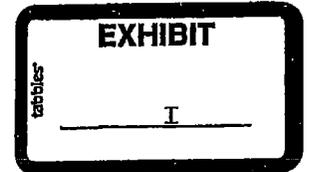
H



PULASKI - KINKELA SOUTH UNIT  
 PULASKI Township, Lawrence County, Commonwealth of Pennsylvania

Certified  
 by  
 JM

TRACT #	LESSOR	LESSEE	LEASE DATE	DOCUMENT #	PARCEL ID	TOWNSHIP	COUNTY	PARCEL ACREAGE	ACREAGE IN UNIT
1	RICHARD J. JR & CYNTHIA KINKELA	HILCORP ENERGY LP	9/8/2011	2011-008779	29-007900	PULASKI	LAWRENCE	123.0180	75.1960
2	ROBERT W. & BETTY J. ROYAL	HILCORP ENERGY LP	4/25/2012	2013-001756	29-007901	PULASKI	LAWRENCE	6.7060	3.0900
3	JOHN A. & CARRIE A. OHRONVYK	HILCORP ENERGY LP	5/21/2012	2012-013734	29-007800	PULASKI	LAWRENCE	5.2700	5.2700
4	RONALD J. & LINDA M. SEBEST	HILCORP ENERGY LP	5/30/2012	2012-013649	29-116000	PULASKI	LAWRENCE	5.2500	5.2500
5	JOSEPH M. JR & MARCY A. SEBEST	HILCORP ENERGY LP	9/8/2011	2011-009165	29-008102	PULASKI	LAWRENCE	4.5250	4.5250
6	RONALD L. & AGNES M. MCALLEN	HILCORP ENERGY LP	9/7/2011	2011-010401	29-008103	PULASKI	LAWRENCE	1.1170	1.1170
7	JERRY T. JR & TERESA D. BURDETT	HILCORP ENERGY LP	9/9/2011	2011-008474	29-120800	PULASKI	LAWRENCE	4.5700	4.5700
8	STEPHEN P. & TONI L. SINKOVICH	HILCORP ENERGY LP	9/8/2011	2011-009053	29-072600	PULASKI	LAWRENCE	52.3000	52.3000
9	RICHARD J. JR & CYNTHIA KINKELA	HILCORP ENERGY LP							
	JOSEPH R. & DEBBIE L. URBAN;								
	RICHARD E. & CAROL A. STEPHENS;								
	ROBERT L. URBAN								
9	JOSEPH R. & DEBBIE L. URBAN;	HILCORP ENERGY LP	9/9/2011	2011-012237	29-134900	PULASKI	LAWRENCE	57.3000	57.3000
10	RICHARD E. & CAROL A. STEPHENS;								
	ROBERT L. URBAN								
10	ROBERT L. URBAN	HILCORP ENERGY LP	9/9/2011	2011-012237	29-134400	PULASKI	LAWRENCE	1.0000	1.0000
11	RICHARD E. & CAROL ANN STEPHENS	HILCORP ENERGY LP	9/9/2011	2011-012409	29-126100	PULASKI	LAWRENCE	3.0000	3.0000
12	SCOTT M. & STACY L. HAGENS	HILCORP ENERGY LP	11/15/2011	2012-000963	29-128100	PULASKI	LAWRENCE	0.6900	0.6900
13	SCOTT M. & STACY L. HAGENS	HILCORP ENERGY LP	11/15/2011	2012-000961	29-035700	PULASKI	LAWRENCE	0.6900	0.6900
14	VINCENT A. & MARGARET R. STRECKANSKY	HILCORP ENERGY LP	10/14/2011	2011-010824	29-076600	PULASKI	LAWRENCE	0.6900	0.6900
15	VINCENT A. & MARGARET R. STRECKANSKY	HILCORP ENERGY LP	10/14/2011	2011-010824	29-076700	PULASKI	LAWRENCE	0.6900	0.6900
16	DEAN A. & DEANN M. MUSCARIELA	HILCORP ENERGY LP	2/28/2012	2012-015679	29-019700	PULASKI	LAWRENCE	0.9300	0.9300
17	FRANK T. NUZZO	HILCORP ENERGY LP	1/6/2012	2012-009982	29-129300	PULASKI	LAWRENCE	2.4000	2.4000
18	BRUCE G. WILLIAMS JR	HILCORP ENERGY LP	4/10/2012	2012-010904	29-144200	PULASKI	LAWRENCE	1.6100	1.6100



Certified  
by  
JM

TRACT #	LESSOR	LESSEE	LEASE DATE	DOCUMENT #	PARCEL ID	TOWNSHIP	COUNTY	PARCEL ACREAGE	ACREAGE IN UNIT
19	RICHARD J. JR & CYNTHIA KINKELA	HILCORP ENERGY LP	9/8/2011	2011-009053	29-072700	PULASKI	LAWRENCE	96.5800	96.5800
20	MICHAEL D. COSTABELL	HILCORP ENERGY LP	9/9/2011	2011-008268	29-046000	PULASKI	LAWRENCE	131.6400	86.0130
21	SPRINGDALE OIL & GAS HOLDINGS LP	HILCORP ENERGY LP	9/9/2011	2011-007949	29-017100	PULASKI	LAWRENCE	151.5470	104.0360
22	SPRINGDALE OIL & GAS HOLDINGS LP	HILCORP ENERGY LP	1/16/2012	2012-011758	29-142900	PULASKI	LAWRENCE	1.9300	1.9300
23	SPRINGDALE OIL & GAS HOLDINGS LP	HILCORP ENERGY LP	9/9/2011	2011-007949	29-041600	PULASKI	LAWRENCE	53.5600	51.6120
24	SPRINGDALE OIL & GAS HOLDINGS LP	HILCORP ENERGY LP	9/9/2011	2011-007949	29-013100	PULASKI	LAWRENCE	22.4100	22.4100
25	SPRINGDALE OIL & GAS HOLDINGS LP	HILCORP ENERGY LP	9/9/2011	2012-011758	29-137200	PULASKI	LAWRENCE	3.0000	3.0000
26	SPRINGDALE OIL & GAS HOLDINGS LP	HILCORP ENERGY LP	9/9/2011	2012-011758	29-122500	PULASKI	LAWRENCE	2.9300	2.9300
27	ROGER A. LOVICH	HILCORP ENERGY LP	1/17/2012	2012-006883	29-081700	PULASKI	LAWRENCE	1.9400	1.9400
28	CYNTHIA L. ANDERSON	HILCORP ENERGY LP	4/24/2012	2012-011369	29-029900	PULASKI	LAWRENCE	1.0000	1.0000
29	BECKI LEE GRAMER ; CYNIDY ANDERSON ; JOYCE HOGAN AND WILLIAM WHITEMAN ;	HILCORP ENERGY LP	4/24/2012	2012-011381	29-029800	PULASKI	LAWRENCE	1.0000	1.0000
30	HELEN A. MCMALEEN	HILCORP ENERGY LP	9/8/2011	2011-008464	29-084500	PULASKI	LAWRENCE	2.0000	2.0000
31	UNA & RONALD MORTIMER	HILCORP ENERGY LP	9/8/2011	2011-011433	29-047900	PULASKI	LAWRENCE	0.9920	0.4960
31	DOMINIC & KAREN A. JOHNJULIO	HILCORP ENERGY LP	9/8/2011	2011-010600	29-047900	PULASKI	LAWRENCE	0.9920	0.4960
32	RICHARD E. & CAROL A. STEPHENS; ROBERT J. URBAN	HILCORP ENERGY LP	9/9/2011	2011-012193	29-134600	PULASKI	LAWRENCE	1.0639	1.0639
33	CHRISTOPHER P. & CATHY JO SABOL	HILCORP ENERGY LP	8/21/2012	2012-013682	29-092100	PULASKI	LAWRENCE	1.3350	1.3350
34	JOSEPH R. & DEBBIE L. URBAN; RICHARD E. & CAROL A. STEPHENS; ROBERT J. URBAN	HILCORP ENERGY LP	9/9/2011	2011-012193	29-135000	PULASKI	LAWRENCE	1.8318	1.8318
35	RICHARD E. & CAROL A. STEPHENS; ROBERT J. URBAN	HILCORP ENERGY LP	9/9/2011	2013-012193	29-134700	PULASKI	LAWRENCE	1.8410	1.8410
36	STEPHEN F. & LOIS J. SCHNEIDER	HILCORP ENERGY LP	11/18/2011	2013-002445	29-115200	PULASKI	LAWRENCE	1.7070	1.7070
37	STEPHEN E. & LOIS J. SCHNEIDER	HILCORP ENERGY LP	11/18/2011	2012-002445	29-115100	PULASKI	LAWRENCE	1.9170	1.9170

TRACT #	LESSOR	LESSEE	LEASE DATE	DOCUMENT #	PARCEL ID	TOWNSHIP	COUNTY	PARCEL ACREAGE	ACREAGE IN UNIT
38	ROBERT L. & SHERYL A. PIERI	HILCORP ENERGY LP	5/25/2012	2012-014625	29-102700	PULASKI	LAWRENCE	1.1300	1.1300
39	ROBERT L. & SHERYL A. PIERI	HILCORP ENERGY LP	5/25/2012	2012-014625	29-102600	PULASKI	LAWRENCE	0.9590	0.9590
40	ROBERT L. & SHERYL A. PIERI	HILCORP ENERGY LP	5/25/2012	2012-014625	29-102500	PULASKI	LAWRENCE	1.2810	1.2810
41	DONALD KEITH ROBINSON	HILCORP ENERGY LP	12/28/2011	2012-006155	29-134900	PULASKI	LAWRENCE	1.1242	1.1242
42	DONALD KEITH ROBINSON	HILCORP ENERGY LP	12/28/2011	2012-006155	29-135100	PULASKI	LAWRENCE	1.3680	1.3680
43	JOSEPH R. & DEBBIE L. URBAN; RICHARD E. & CAROL A. STEPHENS;	HILCORP ENERGY LP	9/9/2011	2011-012193	29-134800	PULASKI	LAWRENCE	1.1729	1.1729
44	JOSEPH R. & DEBBIE L. URBAN; RICHARD E. & CAROL A. STEPHENS;	HILCORP ENERGY LP	9/9/2011	2011-012193	29-134500	PULASKI	LAWRENCE	0.9320	0.9320
45	EDMUND BRETT	HILCORP ENERGY LP	1/30/2012	2012-006077	29-017500	PULASKI	LAWRENCE	1.0430	1.0430
TOTAL ACRES IN UNIT								614.4658	

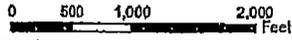
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**HILCORP ENERGY  
COMPANY**

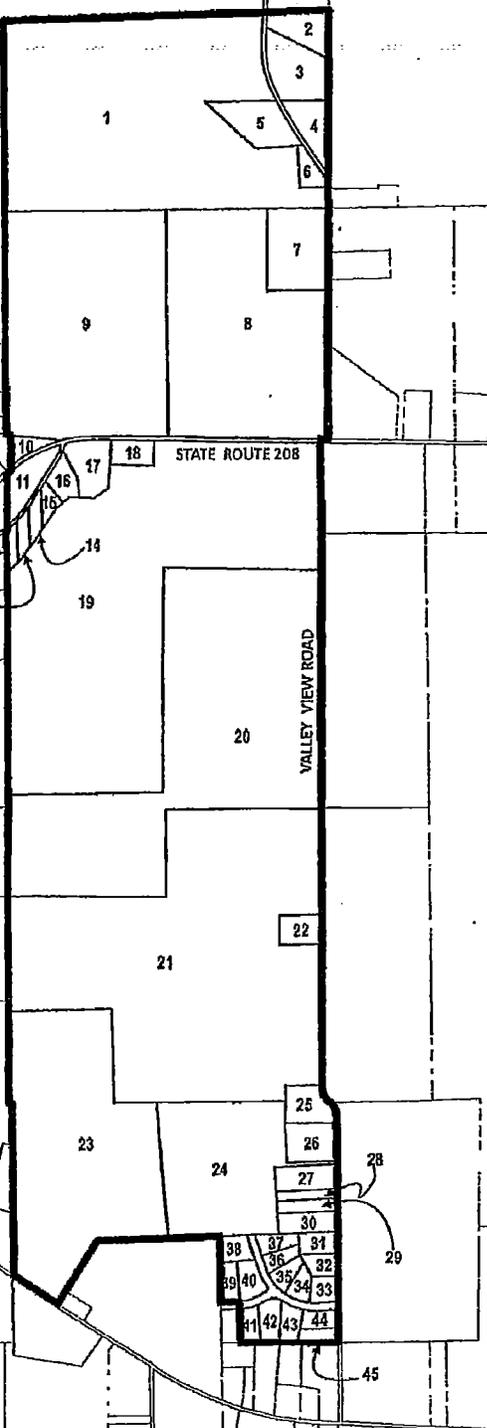
**PULASKI - KINKELA SOUTH UNIT**

PULASKI TOWNSHIP,  
LAWRENCE COUNTY,  
COMMONWEALTH OF PENNSYLVANIA



**EXHIBIT "B"**  
ATTACHED HERETO AND MADE A PART THEREOF THAT DECLARATION AND NOTICE OF  
POOLING PREPARED JUNE 11, 2013 AND MADE EFFECT ON AUGUST 23, 2012,  
BY AND BETWEEN HILCORP ENERGY, L.P. AND HILCORP ENERGY COMPANY, ITS GENERAL PARTNER

TRACT #	PARCELID
1	29-007900
2	29-007901
3	29-007800
4	29-116000
5	29-008102
6	29-008103
7	29-120800
8	29-072600
9	29-134300
10	29-134400
11	29-126100
12	29-128100
13	29-035700
14	29-076600
15	29-076700
16	29-019700
17	29-129300
18	29-144200
19	29-072700
20	29-046000
21	29-017100
22	29-142900
23	29-041600
24	29-013100
25	29-137200
26	29-122500
27	29-081700
28	29-029900
29	29-029800
30	29-084500
31	29-047900
32	29-134600
33	29-092100
34	29-135000
35	29-134700
36	29-115200
37	29-115100
38	29-102700
39	29-102600
40	29-102500
41	29-134900
42	29-135100
43	29-134800
44	29-134500
45	29-017500



**Legend**

Unit Outline = 814.4668 Acres

NOTE: WHERE APPLICABLE AND ASCERTAINABLE, DEED CALLS RUN TO THE CENTERLINE OF THE ROADWAYS

PULASKI - KINKLA NORTH UNIT  
 Pulasaki Township, Lawrence County, Commonwealth of Pennsylvania

TRACT #	LESSOR	LESSEE	LEASE DATE	DOCUMENT #	PARCEL ID	TOWNSHIP	COUNTY	PARCEL ACREAGE	ACREAGE IN UNIT
1	MARGARET A. HERMANN; MARTIN KOLLAR III & JOANNE D. OHLINGER	HILCORP ENERGY LP	6/5/2008	2008-007393	29-073600	PULASKI	LAWRENCE	82.0000	77.9000
1	HEIRS OF FANNIE J. WOOD SHIPLER	HILCORP ENERGY LP	5/13/2013	2013-006830	29-073600	PULASKI	LAWRENCE	82.0000	4.1000
2	ANDREW D. & BRENDA L. HOSTETLER	HILCORP ENERGY LP	4/28/2012	2012-011412	29-063300	PULASKI	LAWRENCE	5.4500	5.4500
3	RICHARD E. & BETH ANN GARRETT	HILCORP ENERGY LP	4/16/2012	2012-012219	29-046600	PULASKI	LAWRENCE	2.5500	2.5500
4	BERYL E. BEVERIDGE	HILCORP ENERGY LP	10/5/2012	2012-016762	29-075300	PULASKI	LAWRENCE	4.9900	4.7405
4	HEIRS OF FANNIE J. WOOD SHIPLER	HILCORP ENERGY LP	5/13/2013	2013-006830	29-075300	PULASKI	LAWRENCE	4.9900	0.2495
5	DOROTHY E. BRAKE	HILCORP ENERGY LP	6/22/2012	2013-004499	29-035800	PULASKI	LAWRENCE	3.0000	2.8500
5	HEIRS OF FANNIE J. WOOD SHIPLER	HILCORP ENERGY LP	5/13/2013	2013-006830	29-035800	PULASKI	LAWRENCE	3.0000	0.1500
6	DENNIS L. & PAULINE H. POWELL	HILCORP ENERGY LP	6/26/2012	2012-015863	29-104700	PULASKI	LAWRENCE	1.0000	0.9500
6	HEIRS OF FANNIE J. WOOD SHIPLER	HILCORP ENERGY LP	5/13/2013	2013-006830	29-104700	PULASKI	LAWRENCE	1.0000	0.0500
7	MARGARET A. HERMANN; MARTIN KOLLAR III & JOANNE D. OHLINGER	HILCORP ENERGY LP	6/5/2008	2008-007393	29-073700	PULASKI	LAWRENCE	86.4000	86.4000
8	MARTIN KOLLAR III	HILCORP ENERGY LP	6/4/2012	2012-013667	29-073400	PULASKI	LAWRENCE	4.2300	4.2300
9	RAYMOND W. & JOANNE D. OHLINGER	HILCORP ENERGY LP	1/4/2012	2012-003728	29-097900	PULASKI	LAWRENCE	5.3800	5.3800
10	KETH H. & MICHELE D. HOFFMAN	HILCORP ENERGY LP	10/19/2011	2011-012086	29-128200	PULASKI	LAWRENCE	3.0000	3.0000
11	RICHARD J. JR & CYNTHIA KINKLA	HILCORP ENERGY LP	9/8/2011	2011-008779	29-007900	PULASKI	LAWRENCE	123.0180	14.9220
12	ROBERT W. & BETTY J. ROYAL	HILCORP ENERGY LP	4/25/2012	2012-008740	29-607901	PULASKI	LAWRENCE	6.7060	3.6160
13	WALTER CHARLES & SHIRLEY MAE WAGNER	HILCORP ENERGY LP	9/29/2012	2013-002624	29-136700	PULASKI	LAWRENCE	1.5600	1.5600
14	THE DUBRASKEY FAMILY TRUST	HILCORP ENERGY LP	9/7/2011	2012-001924	29-036400	PULASKI	LAWRENCE	8.7740	8.7740

CERTIFIED BY PW

TRACT #	LESSOR	HILCORP ENERGY LP	LESSEE	LEASE DATE	DOCUMENT #	PARCEL ID	TOWNSHIP	COUNTY	PARCEL ACREAGE	ACREAGE IN UNIT
15	HILLARY S. III & DIANE L. GREER	HILCORP ENERGY LP	HILCORP ENERGY LP	9/7/2011	2011-010644	29-052300	PULASKI	LAWRENCE	1.1270	1.1270
16	HILLARY S. III & DIANE L. GREER	HILCORP ENERGY LP	HILCORP ENERGY LP	9/7/2011	2011-010644	29-052300	PULASKI	LAWRENCE	1.1300	1.1300
17	JOSEPH D. & DINIA KOLLAR	HILCORP ENERGY LP	HILCORP ENERGY LP	6/4/2012	2012-014391	29-073500	PULASKI	LAWRENCE	1.1300	1.1300
18	JOSEPH D. & DINIA KOLLAR	HILCORP ENERGY LP	HILCORP ENERGY LP	6/4/2012	2012-014391	29-036401	PULASKI	LAWRENCE	0.8030	0.8030
19	WILLIAM R. & MARY KAY HOGUE	HILCORP ENERGY LP	HILCORP ENERGY LP	3/13/2012	2012-010822	29-061600	PULASKI	LAWRENCE	1.1300	1.1300
20	DAVID J. & SYLVIA J. DROBNY	HILCORP ENERGY LP	HILCORP ENERGY LP	3/22/2012	2012-010424	29-137100	PULASKI	LAWRENCE	1.1200	1.1200
21	DAVID J. & SYLVIA J. DROBNY	HILCORP ENERGY LP	HILCORP ENERGY LP	3/22/2012	2012-010424	29-036000	PULASKI	LAWRENCE	1.1200	1.1200
22	DAVID J. & SYLVIA J. DROBNY	HILCORP ENERGY LP	HILCORP ENERGY LP	3/22/2012	2012-010424	29-036100	PULASKI	LAWRENCE	1.1200	1.1200
23	JAMES R. TRAVIS	HILCORP ENERGY LP	HILCORP ENERGY LP	11/5/2012	2013-003914	29-046700	PULASKI	LAWRENCE	1.3300	1.3300
24	DAVID D. JR. & HOLLY M. WIGLEY	HILCORP ENERGY LP	HILCORP ENERGY LP	4/4/2012	2013-010894	29-036500	PULASKI	LAWRENCE	3.5000	3.5000
TOTAL ACRES IN UNIT									240.3820	

CERTIFIED  
BY  
PW



**HILCORP ENERGY  
COMPANY**

**PULASKI - KINKELA NORTH UNIT**

PULASKI TOWNSHIP,  
LAWRENCE COUNTY,  
COMMONWEALTH OF PENNSYLVANIA

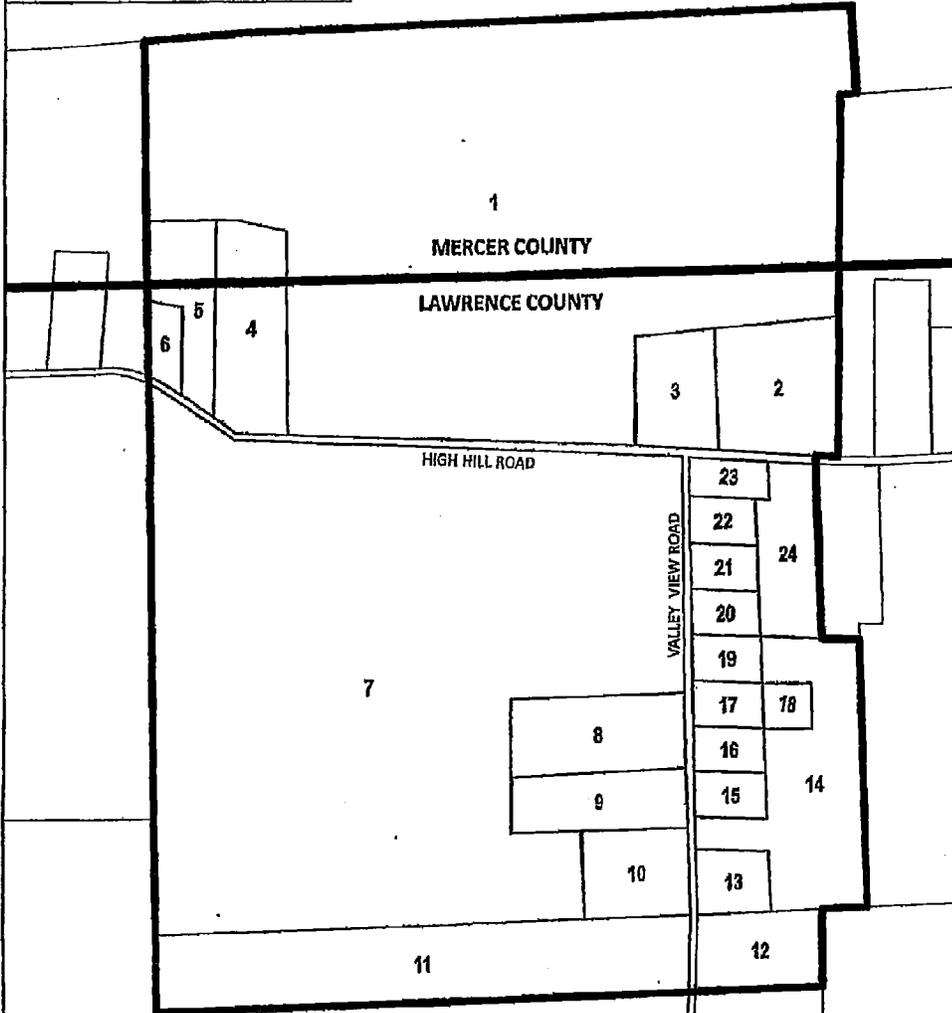
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**EXHIBIT "B"**

ATTACHED HERETO AND MADE A PART THEREOF THAT DECLARATION AND NOTICE OF  
POOLING PREPARED JUNE 5, 2013 AND MADE EFFECT ON MAY 16, 2013,  
BY AND BETWEEN HILCORP ENERGY I, L.P. AND HILCORP ENERGY COMPANY, ITS GENERAL PARTNER

NOTE: WHERE APPLICABLE AND ASCERTAINABLE, DEED  
CALLS RUN TO THE CENTERLINE OF THE ROADWAYS



TRACT #	PARCEL ID	TRACT #	PARCEL ID	TRACT #	PARCEL ID
1	29-073600	9	29-097900	17	29-073500
2	29-063300	10	29-128200	18	29-036401
3	29-046600	11	29-007900	19	29-061600
4	29-075300	12	29-007901	20	29-137100
5	29-035800	13	29-136700	21	29-036000
6	29-104700	14	29-036400	22	29-036100
7	29-073700	15	29-052300	23	29-046700
8	29-073400	16	29-052100	24	29-036500

**Legend**

Unit Outline = 240.3820 Acres

**HBC 110-H Unit -  
Pulaski Accumulation  
Hilcorp Energy Company**

First Name	Last Name	Street	City, State, Zip	Parcel #	Gross Acres	Effective Date	County	State	Lease #	Issuer	Prospect	Lease Date	Expiration Date
John & Ellen C.	Haindl	7565 Hubbard Road SE	Hubbard, OH 44425	29-054800	94.0000	6/11/10	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 2ND CLOSE	5/16/2012	5/15/2017	
Barb Means	Steele	1547 Caroline Ave	Hubbard, OH 44425	29-054800	94.0000	4/17/11	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 2ND CLOSE	4/21/2012	4/20/2017	
David C	Vickerman	PO Box 1115	New Bedford, PA 16140	29-054800	94.0000	4/27/11	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 2ND CLOSE	4/21/13	4/16/2017	
Donna M. & Robert D.	Carson	1092 Ohio Ave	Warren, OH 44483	29-054800	94.0000	4/27/11	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 2ND CLOSE	3/13/2012	3/12/2017	
Donald Jr.	Whitener	2403 W Liberty Street	Youngstown, OH 44404	29-054800	94.0000	4/27/11	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 2ND CLOSE	3/13/2012	3/12/2017	
William M. & Beverly F.	Beck	3954 Westgreen Road	Hubbard, OH 44425	29-054800	94.0000	4/27/11	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 2ND CLOSE	3/13/2012	3/12/2017	
William L.	HANN	875 Shaw Run Ave	North Port, WV 26093	29-054800	94.0000	4/27/11	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 2ND CLOSE	3/13/2012	3/12/2017	
THOMAS J	ZETS	1249 New Bedford Sharon Road	West Middlesex, PA 16159	29-110400	30.0000	10/5/00	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 5ST CLOSE	3/20/2012	1/19/2017	
THOMAS G	PAVLOV	13 Ulla Drive	West Middlesex, PA 16159	29-110400	30.0000	9/8/00	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 5ST CLOSE	2/27/2012	2/25/2017	
STEVEN J	BECK	358 Hopeworth Lane	West Middlesex, PA 16159	29-012000	31.2900	31.2900	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 5ST CLOSE	6/20/2012	6/19/2017	
ROBERT G & CATHERINE G	CLARK	4109 High Hill Road	West Middlesex, PA 16159	29-027200	12.2900	12.2900	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 5ST CLOSE	1/16/2012	1/15/2017	
ALVIN	PERNIN	825 New Bedford Sharon Road	West Middlesex, PA 16159	29-027200	5.2900	5.2900	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 5ST CLOSE	3/26/2012	3/25/2017	
ROBERT T & HAZEL A	PERNIN	917 New Bedford Sharon Road	West Middlesex, PA 16159	29-027200	5.2900	5.2900	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 5ST CLOSE	3/26/2012	3/25/2017	
PAULINE E.	BECK	208 Hopeworth Lane	West Middlesex, PA 16159	29-115500	30.0000	30.0000	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 5ST CLOSE	2/26/2012	2/25/2017	
RICHARD	BLANCO	49 Sharon Bedford Road	West Middlesex, PA 16159	27-209-068	0.9300	0.9300	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 5ST CLOSE	9/7/2011	9/6/2016	
GREGORY A. & JANICE C	EVANS	22 Shotton Road	West Middlesex, PA 16159	27-209-068	76.6200	75.0200	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 5ST CLOSE	9/7/2011	9/6/2016	
KENNETH J & BRENDA D	SHERIDAN	80 Shotton Road	West Middlesex, PA 16159	27-209-068	77.0000	77.0000	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 5ST CLOSE	9/7/2011	9/6/2016	
MICHAEL T & JO ANN M	BOHONIK	4114 High Hill Road	West Middlesex, PA 16159	27-209-068	46.1100	46.1100	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 5ST CLOSE	9/7/2011	9/6/2016	
CHARLES W AND COLLEEN R	SYMONS	402 Johnson Road	West Middlesex, PA 16159	29-012000	24.5000	24.5000	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 5ST CLOSE	9/7/2011	9/6/2016	
JOHN R.	URBAN	1134 Ullrich Rd	West Middlesex, PA 16159	29-034200	16.8000	16.8000	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 5ST CLOSE	9/7/2011	9/6/2016	
BRUCE	DELLAK	1525 New Bedford Sharon Road	West Middlesex, PA 16159	29-039000	10.0000	10.0000	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 5ST CLOSE	9/7/2011	9/6/2016	
DAVID P AND KATHLEEN A	CALO	302 Tappan Hill Rd	West Middlesex, PA 16159	29-039000	2.0000	2.0000	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 5ST CLOSE	9/7/2011	9/6/2016	
THOMAS R AND SALLY J	BOZEL	1155 Conm Street	West Middlesex, PA 16159	29-039000	2.0000	2.0000	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 5ST CLOSE	9/7/2011	9/6/2016	
BENJAMIN	BOZEL	352 Tappan Hill Rd	West Middlesex, PA 16159	29-039000	3.2500	3.2500	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 5ST CLOSE	9/7/2011	9/6/2016	
RONALD J & PATRICIA A	RYAN	1511 Sharon Bedford Road	West Middlesex, PA 16159	29-012000	10.1000	10.1000	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 5ST CLOSE	9/7/2011	9/6/2016	
BRAND J	RYAN	4833 Evergreen Road	West Middlesex, PA 16159	29-155900	2.2800	2.2800	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 5ST CLOSE	9/7/2011	9/6/2016	
DAVID M	BOHONIK	5080 Evergreen Road	West Middlesex, PA 16159	29-155900	2.2800	2.2800	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 5ST CLOSE	9/7/2011	9/6/2016	
DAVID M & DOROTHY	BOHONIK	517 New Bedford Sharon Rd	West Middlesex, PA 16159	29-155900	3.1800	3.1800	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 5ST CLOSE	9/7/2011	9/6/2016	
DAVID M & WISSEBART R	STRECHANSKY	3128 Condit Road	West Middlesex, PA 16159	29-155900	2.9600	2.9600	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 5ST CLOSE	9/7/2011	9/6/2016	
JACK & SUSAN J	WICKE	1744 New Bedford Sharon Road	West Middlesex, PA 16159	29-155900	4.9700	4.9700	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 5ST CLOSE	9/7/2011	9/6/2016	
DOANNE	FEL	4214 Evergreen Road	West Middlesex, PA 16159	29-124800	25.4000	25.4000	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 5ST CLOSE	10/21/2011	10/20/2016	
DOANNE & BRENDA LEE	DOUGLAS	1562 New Bedford Sharon Rd	West Middlesex, PA 16159	29-124800	1.0000	1.0000	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 5ST CLOSE	10/21/2011	10/20/2016	
DOANNE & BRENDA LEE	DOUGLAS	4203 Evergreen Road	West Middlesex, PA 16159	29-124800	8.2900	8.2900	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 5ST CLOSE	10/21/2011	10/20/2016	
DOANNE & BRENDA LEE	DOUGLAS	4203 Evergreen Road	West Middlesex, PA 16159	29-124800	8.2900	8.2900	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 5ST CLOSE	10/21/2011	10/20/2016	
DAVID	MCQUEEN	4922 Evergreen Road	West Middlesex, PA 16159	29-124800	10.0000	10.0000	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 5ST CLOSE	10/21/2011	10/20/2016	
THOMAS	PAVLOV	West Middlesex, PA 16159	West Middlesex, PA 16159	29-100700	1.6600	1.6600	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 5ST CLOSE	11/4/2011	11/3/2016	
THOMAS G & MARGARET A ZETS TRUST	KUPIC	1249 New Bedford Sharon Rd	West Middlesex, PA 16159	29-100700	13.2800	13.2800	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 5ST CLOSE	10/28/2011	10/27/2016	
WALTER & KATHLEEN	WILLIAMS	5205 Evergreen Road	West Middlesex, PA 16159	29-055100	4.0000	4.0000	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 5ST CLOSE	11/7/2011	11/6/2016	
WALTER & KATHLEEN	WILLIAMS	5205 Evergreen Road	West Middlesex, PA 16159	29-055100	2.0000	2.0000	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 5ST CLOSE	11/7/2011	11/6/2016	
ESTHER ANN	WILLIAMS	315 Johnson Road	West Middlesex, PA 16159	29-055100	1.0000	1.0000	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 5ST CLOSE	11/7/2011	11/6/2016	
THODOR J & KELLY A	PRIZLUM	1213 New Bedford Sharon Road	West Middlesex, PA 16159	29-055100	1.8700	1.8700	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 5ST CLOSE	11/7/2011	11/6/2016	
THOMAS JAMES JR & STACI L	PAVLOV	PO Box 232	West Middlesex, PA 16159	29-055100	1.8700	1.8700	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 5ST CLOSE	11/7/2011	11/6/2016	
SAMUEL P & ROBERT M	LURPAK	150 Box 232	West Middlesex, PA 16159	29-055100	2.5000	2.5000	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 5ST CLOSE	11/21/2011	11/20/2016	
ANDREW AND EITH G	LEVICK	210 East Garfield Avenue	West Middlesex, PA 16159	29-082300	9.9100	9.9100	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 5ST CLOSE	11/21/2011	11/20/2016	
WYMAN L & JOYCE A	BRINK	365 New Bedford Sharon Road	West Middlesex, PA 16159	29-082300	2.1800	2.1800	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 5ST CLOSE	11/21/2011	11/20/2016	
JOHN III & CHRISTIE	HULL	4910 High Hill Road	West Middlesex, PA 16159	29-007000	5.0000	5.0000	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 5ST CLOSE	1/24/2012	1/23/2017	
RAMON & WANDA	CHEROY	1013 New Bedford Sharon Road	West Middlesex, PA 16159	29-113200	4.7500	4.7500	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 5ST CLOSE	1/24/2012	1/23/2017	
TONI W	HARVEY	448 Johnson Road	West Middlesex, PA 16159	29-113200	12.8000	12.8000	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 5ST CLOSE	1/24/2012	1/23/2017	
DOUGLAS & KAREN	KRYVAK	1322 New Bedford Sharon Road	West Middlesex, PA 16159	6.8200	6.8200	6.8200	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 5ST CLOSE	1/24/2012	1/23/2017	
WIKKO	REYNOLDS	9 Sharon Bedford Road Unit 1	West Middlesex, PA 16159	17-209-065	61.0000	61.0000	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 5ST CLOSE	1/24/2012	1/23/2017	
ANDREW J & JACQUELYN A	REYNOLDS	28901 South Western Avenue #135	Randolph, VA 22656	29-050900	5.8800	5.8800	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 5ST CLOSE	1/24/2012	1/23/2017	
ELIZABETH A	EMERY	1457 New Bedford Sharon Road	West Middlesex, PA 16159	29-050900	4.3000	4.3000	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 5ST CLOSE	1/24/2012	1/23/2017	
ELIZABETH A	EMERY	1457 New Bedford Sharon Road	West Middlesex, PA 16159	29-050900	4.3000	4.3000	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 5ST CLOSE	1/24/2012	1/23/2017	
ELIZABETH A	EMERY	1457 New Bedford Sharon Road	West Middlesex, PA 16159	29-050900	4.3000	4.3000	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 5ST CLOSE	1/24/2012	1/23/2017	
ELIZABETH A	EMERY	1457 New Bedford Sharon Road	West Middlesex, PA 16159	29-050900	4.3000	4.3000	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 5ST CLOSE	1/24/2012	1/23/2017	
ELIZABETH A	EMERY	1457 New Bedford Sharon Road	West Middlesex, PA 16159	29-050900	4.3000	4.3000	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 5ST CLOSE	1/24/2012	1/23/2017	
ELIZABETH A	EMERY	1457 New Bedford Sharon Road	West Middlesex, PA 16159	29-050900	4.3000	4.3000	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 5ST CLOSE	1/24/2012	1/23/2017	
ELIZABETH A	EMERY	1457 New Bedford Sharon Road	West Middlesex, PA 16159	29-050900	4.3000	4.3000	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 5ST CLOSE	1/24/2012	1/23/2017	
ELIZABETH A	EMERY	1457 New Bedford Sharon Road	West Middlesex, PA 16159	29-050900	4.3000	4.3000	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 5ST CLOSE	1/24/2012	1/23/2017	
ELIZABETH A	EMERY	1457 New Bedford Sharon Road	West Middlesex, PA 16159	29-050900	4.3000	4.3000	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 5ST CLOSE	1/24/2012	1/23/2017	
ELIZABETH A	EMERY	1457 New Bedford Sharon Road	West Middlesex, PA 16159	29-050900	4.3000	4.3000	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 5ST CLOSE	1/24/2012	1/23/2017	
ELIZABETH A	EMERY	1457 New Bedford Sharon Road	West Middlesex, PA 16159	29-050900	4.3000	4.3000	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 5ST CLOSE	1/24/2012	1/23/2017	
ELIZABETH A	EMERY	1457 New Bedford Sharon Road	West Middlesex, PA 16159	29-050900	4.3000	4.3000	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 5ST CLOSE	1/24/2012	1/23/2017	
ELIZABETH A	EMERY	1457 New Bedford Sharon Road	West Middlesex, PA 16159	29-050900	4.3000	4.3000	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 5ST CLOSE	1/24/2012	1/23/2017	
ELIZABETH A	EMERY	1457 New Bedford Sharon Road	West Middlesex, PA 16159	29-050900	4.3000	4.3000	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 5ST CLOSE	1/24/2012	1/23/2017	
ELIZABETH A	EMERY	1457 New Bedford Sharon Road	West Middlesex, PA 16159	29-050900	4.3000	4.3000	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 5ST CLOSE	1/24/2012	1/23/2017	
ELIZABETH A	EMERY	1457 New Bedford Sharon Road	West Middlesex, PA 16159	29-050900	4.3000	4.3000	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 5ST CLOSE	1/24/2012	1/23/2017	
ELIZABETH A	EMERY	1457 New Bedford Sharon Road	West Middlesex, PA 16159	29-050900	4.3000	4.3000	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 5ST CLOSE	1/24/2012	1/23/2017	
ELIZABETH A	EMERY	1457 New Bedford Sharon Road	West Middlesex, PA 16159	29-050900	4.3000	4.3000	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 5ST CLOSE	1/24/2012	1/23/2017	
ELIZABETH A	EMERY	1457 New Bedford Sharon Road	West Middlesex, PA 16159	29-050900	4.3000	4.3000	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 5ST CLOSE	1/24/2012	1/23/2017	
ELIZABETH A	EMERY	1457 New Bedford Sharon Road	West Middlesex, PA 16159	29-050900	4.3000	4.3000	LAWRENCE PA	NON-W/LS	HILCORP ENERGY LP	SHELL DD - 5ST CLOSE			

ARTURE	SAWYER	PO Box 237	New Bedford, PA 15140	79-115000	3,9200	3,9200	PULASKI	LAWRENCE PA	WV558624	HILCORP ENERGY LP	UTICA	11/14/2012	11/13/2017
JACON & LESUE A	HESS	3908 High Hill Road	West Middlesex, PA 15159	79-134002	2,9500	2,9500	PULASKI	LAWRENCE PA	WV569748	HILCORP ENERGY LP	UTICA	11/12/2012	11/12/2017
SAMFORD L	LEVINE	PO Box 243	New Bedford, PA 15140	79-115600	10,3900	10,3900	PULASKI	LAWRENCE PA	WV567097	HILCORP ENERGY LP	UTICA	3/22/2013	3/21/2018
	EVERGREEN CEMETERY ASSOCIATION	4109 West Road	Pulaski, PA 15143	79-152600	5,5000	5,5000	PULASKI	LAWRENCE PA	WV568071	HILCORP ENERGY LP	UTICA	4/29/2013	4/24/2018



