

Black Road, Tax ID = 58-127-66, 22.7 ac
Wilmot Township, Bradford County, PA

Geologic Summary

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DISCLAIMER

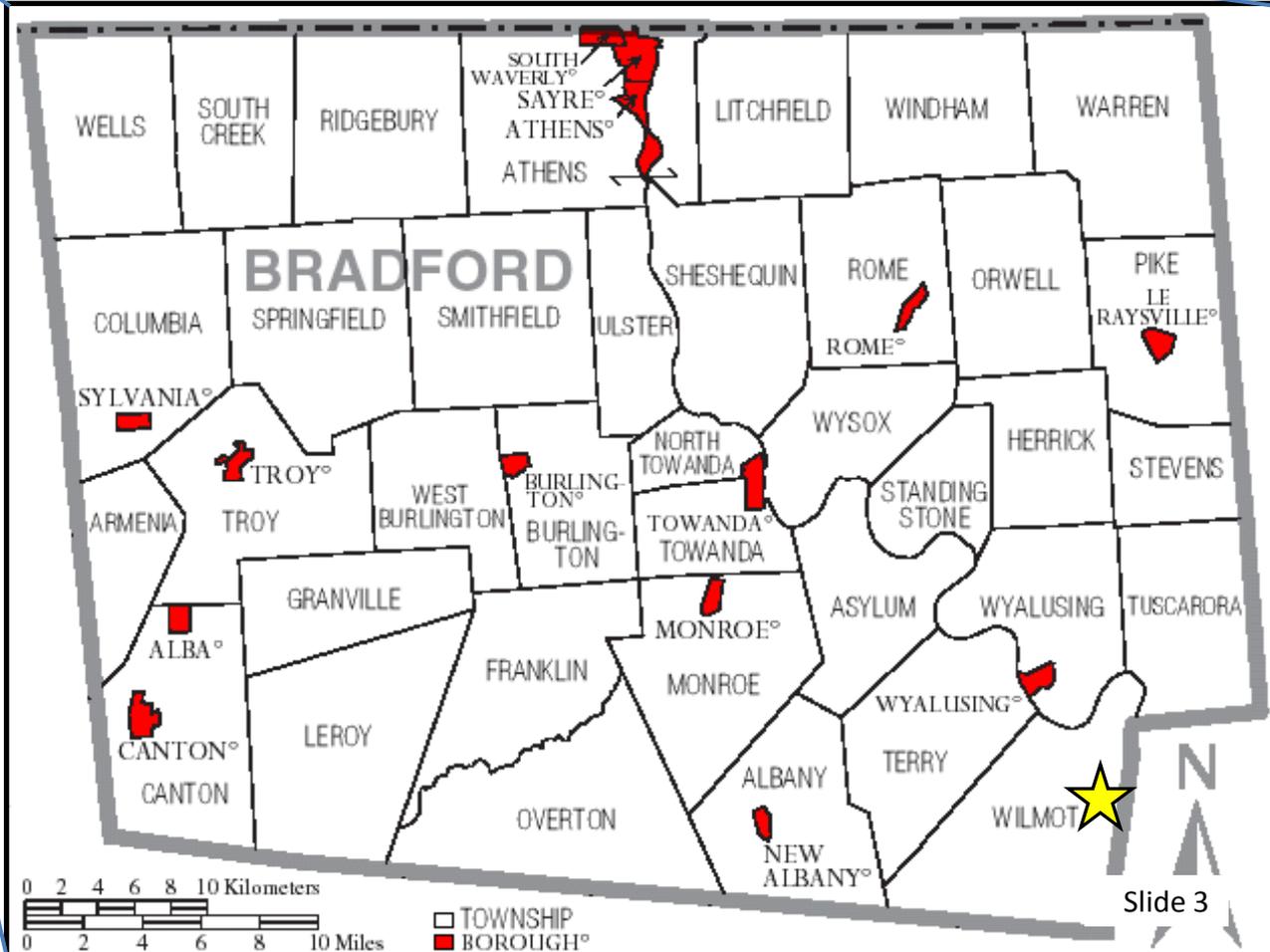
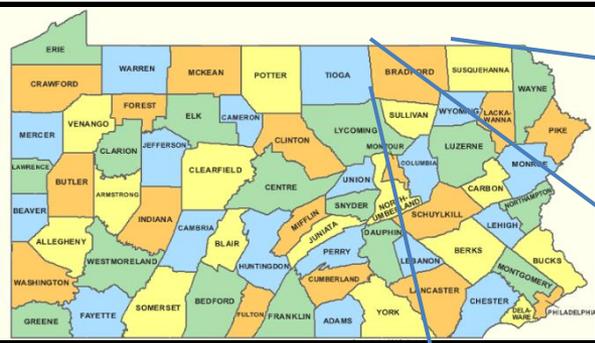
Information on the subject property set forth herein was originally compiled by Zaengle Geoscience LLC ("Zaengle") for Manzek Land Company ("MLC") c/o of Drake D. Nicholas, Esq., Receiver ("Receiver") to Manzek Land Company. The geologic information contained herein is a compilation of certain available geologic data for the subject property, Black Road, Tax ID = 58-127-66, 22.7 ac Wilmot Township, Bradford County, PA. owned by MLC. Any party interested in purchasing the subject property must make their own evaluation of the subject property and is responsible for performing their own due diligence on the subject property.

Zaengle, the Receiver and MLC disclaim any and all liability for information and/or statements contained herein and make no representation or warranty as to the completeness or accuracy of the enclosed presentation or the information contained herein, including any representation or warranty of any kind as to the amount of "in place" or recoverable oil and gas reserves (proved, probable or otherwise) attributable to the subject property, as to geological and engineering interpretations related thereto or as to process which will be received for production.

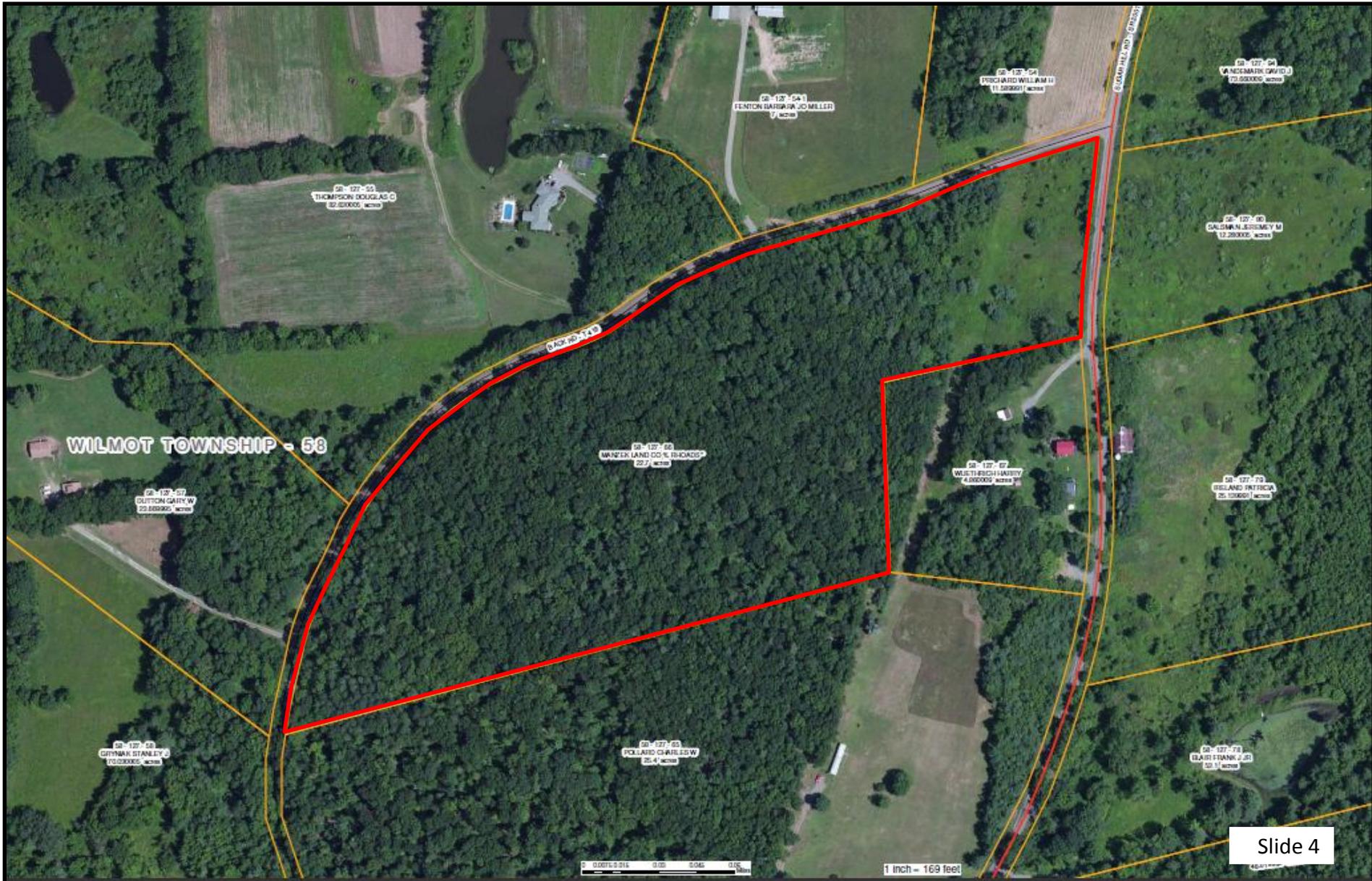
Any party interested in purchasing the subject property should understand that purchases of properties with potential "in place" or recoverable oil and gas reserves is making an investment which is subject to risks and uncertainties and is a highly speculative investment.

Location Map, Bradford County, PA

★ Subject Property, Black Road, Tax ID = 58-127-66, 22.7 ac
Wilmot Township, Bradford County, PA

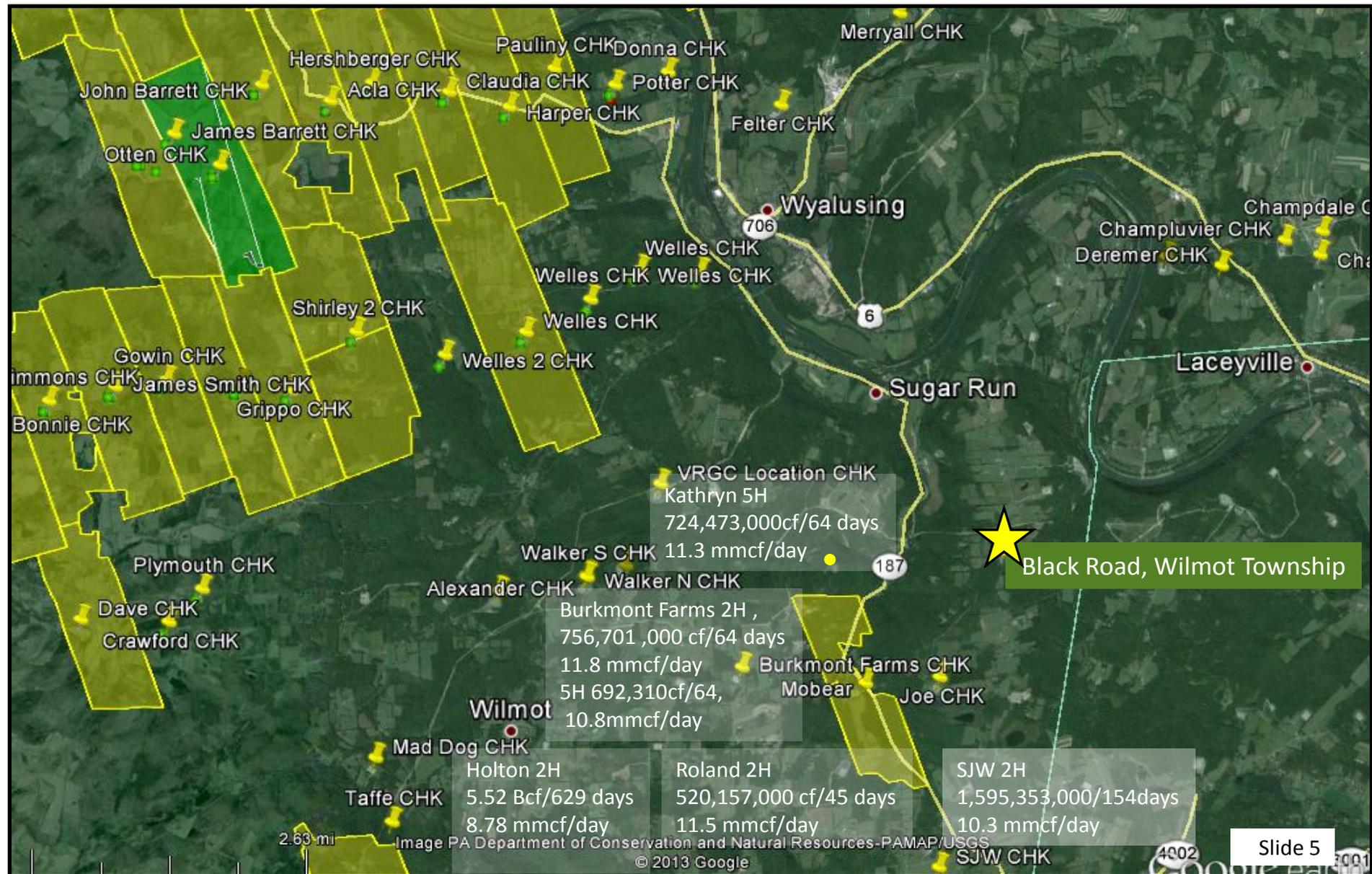


Tax Map, Subject Property (red), Black Road, Tax ID = 58-127-66, 22.7 ac
Wilmot Township, Bradford County, PA



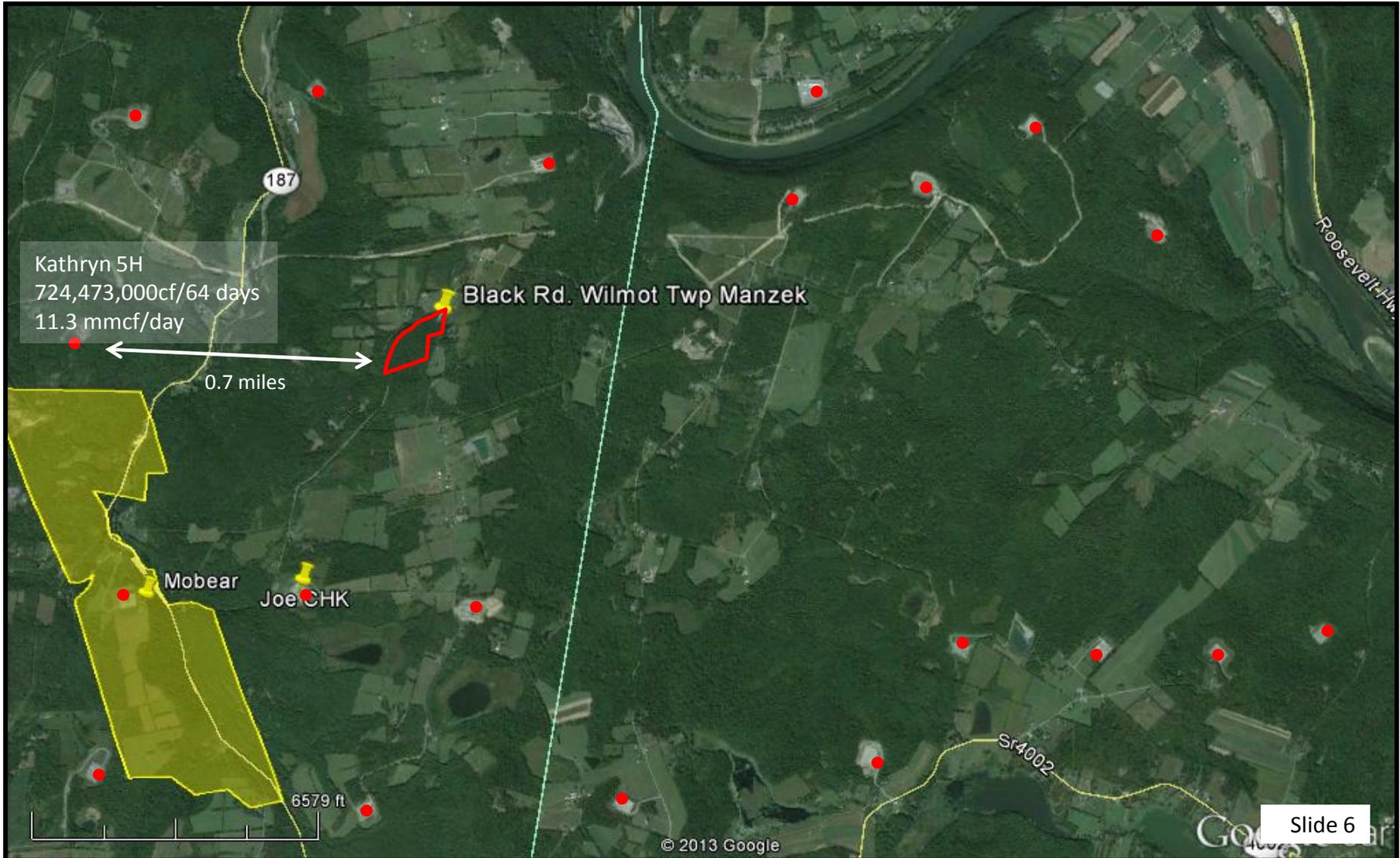
Regional Marcellus Shale Production Units & Production

★ Subject Property, Black Road, Tax ID = 58-127-66, 22.7 ac
 Wilmot Township, Bradford County, PA (Google Earth 8/15/13)



Marcellus Shale Drilling Pads (●)

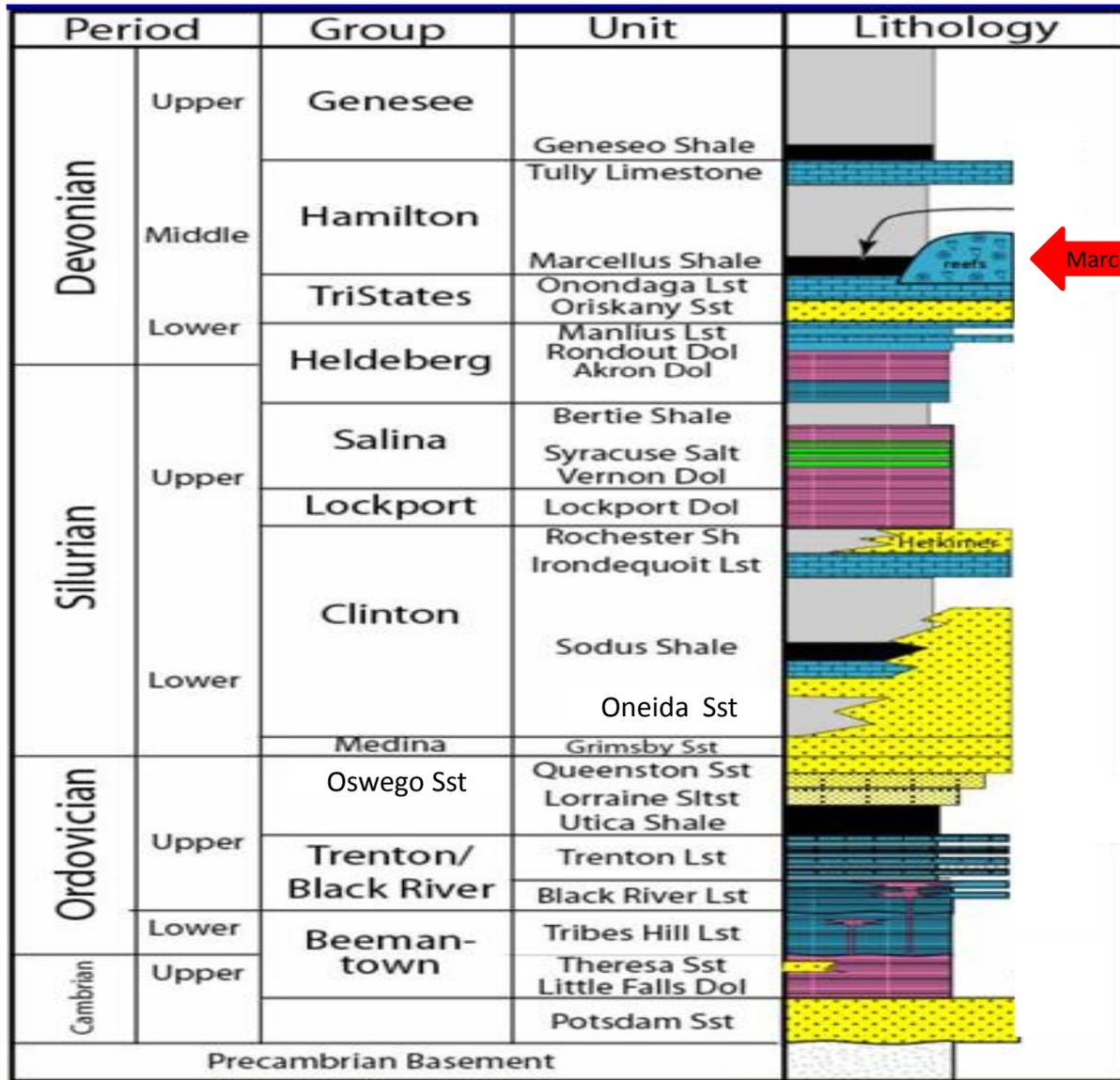
Subject Property, Black Road, Tax ID = 58-127-66 (red outline), 22.7 ac
Wilmot Township, Bradford County, PA (Google Earth 8/15/13)



Topographic Map, Subject Property (red), Black Road, Tax ID = 58-127-66, 22.7 ac
Wilmot Township, Bradford County, PA
(Google Earth 8/15/13)

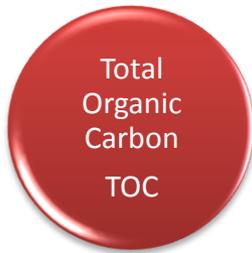


Geologic Section / Historic Production
 Subject Property, Gulf Road, Tax ID = 27-51-44, 14.0 ac
 Orwell Township, Bradford County, PA



(R. Nyahay, J. Leone, L. Smith, J. Martin, D. Jarvie, 2007)
 Modified D. Zaengle 10/2008

Marcellus: 4-6%



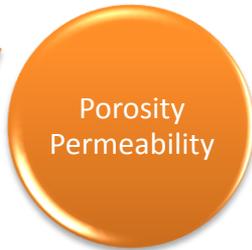
Marcellus: ~ 3.2
Dry Gas Window



Marcellus: *



Marcellus: ~ 90 Bcf/sq mile



Marcellus:*



Marcellus: *



Marcellus: ~ 7,500'



Marcellus: (High TOC) ~300'

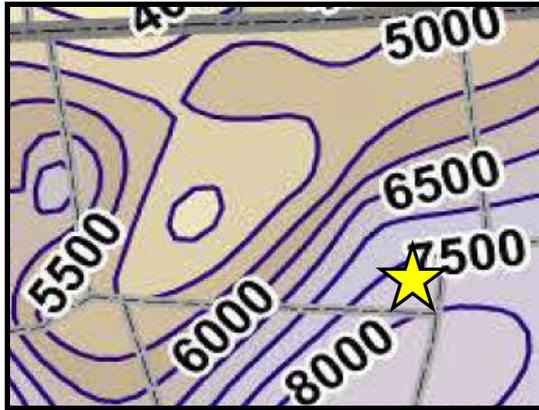


Summary
Key Geologic Factors
Subject Property, Black Road,
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Wilmot Township, Bradford County, PA
* Public data unavailable

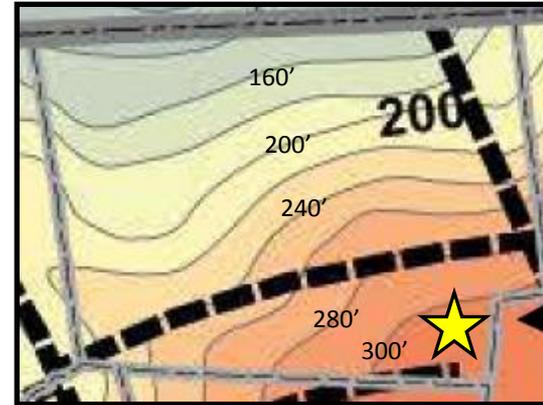
Regional Geologic Maps

★ Subject Property, Black Road, Tax ID = 58-127-66, 22.7 ac
Wilmot Township, Bradford County, PA

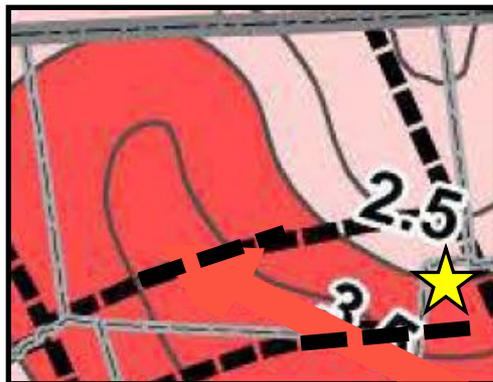
Regional Depth to base Marcellus Shale
~ 7,500'



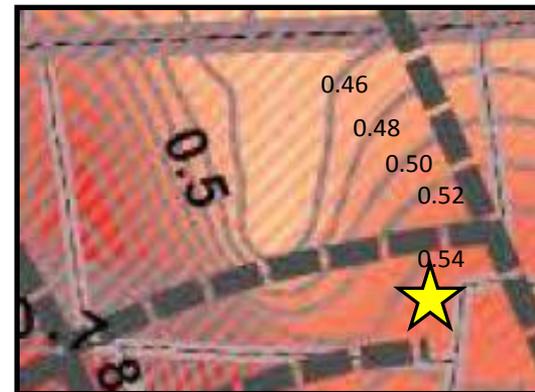
Gross Thickness
~ 350'



Thermal Maturation (Ro)
Marcellus: ~ 3.2
Dry Gas Window



Pressure gradient (PSI/ft)
0.55 PSI/ft



Subject Property (red), Black Road, Tax ID = 58-127-66 (red outline), 22.7 ac
Wilmot Township, Bradford County, PA
Marcellus Shale Depth = — Thickness = —
(Google Earth 8/15/13)

Type Log (8.4 miles Northwest
of property)
Kissell Unit#1, Shell Oil, 20009,
TD=7,507', KB=1,369', 9/73,
Asylum Twp., Bradford Cnty.,
PA

~ 7,450'

~ 300'

~ 7,500'

Wilmot

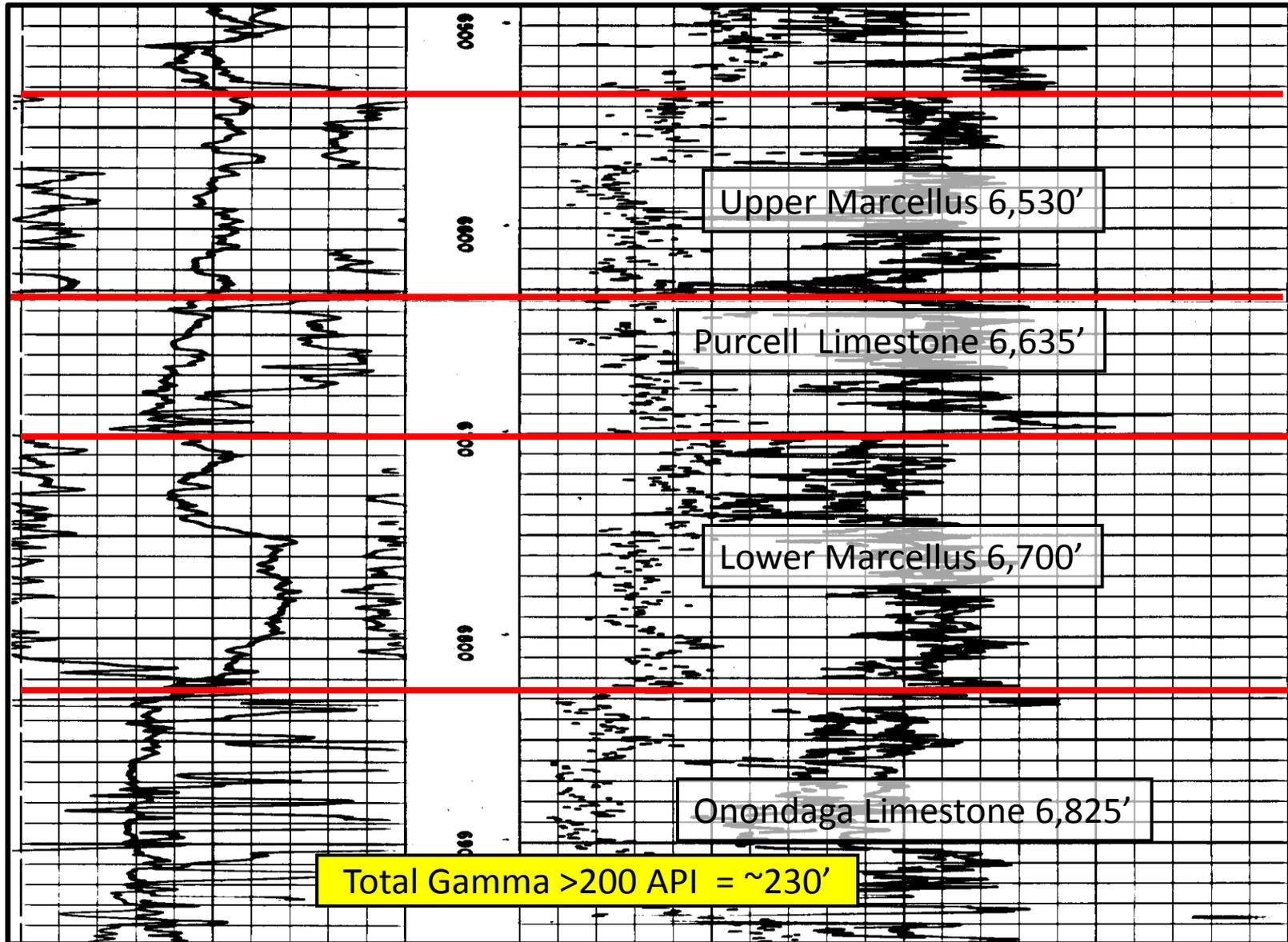
5360 ft

© 2013 Google

Google e

Type Log (8.4 miles Northwest of subject property)

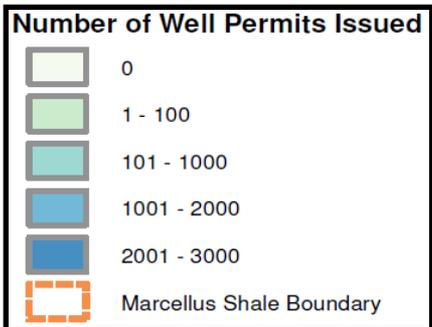
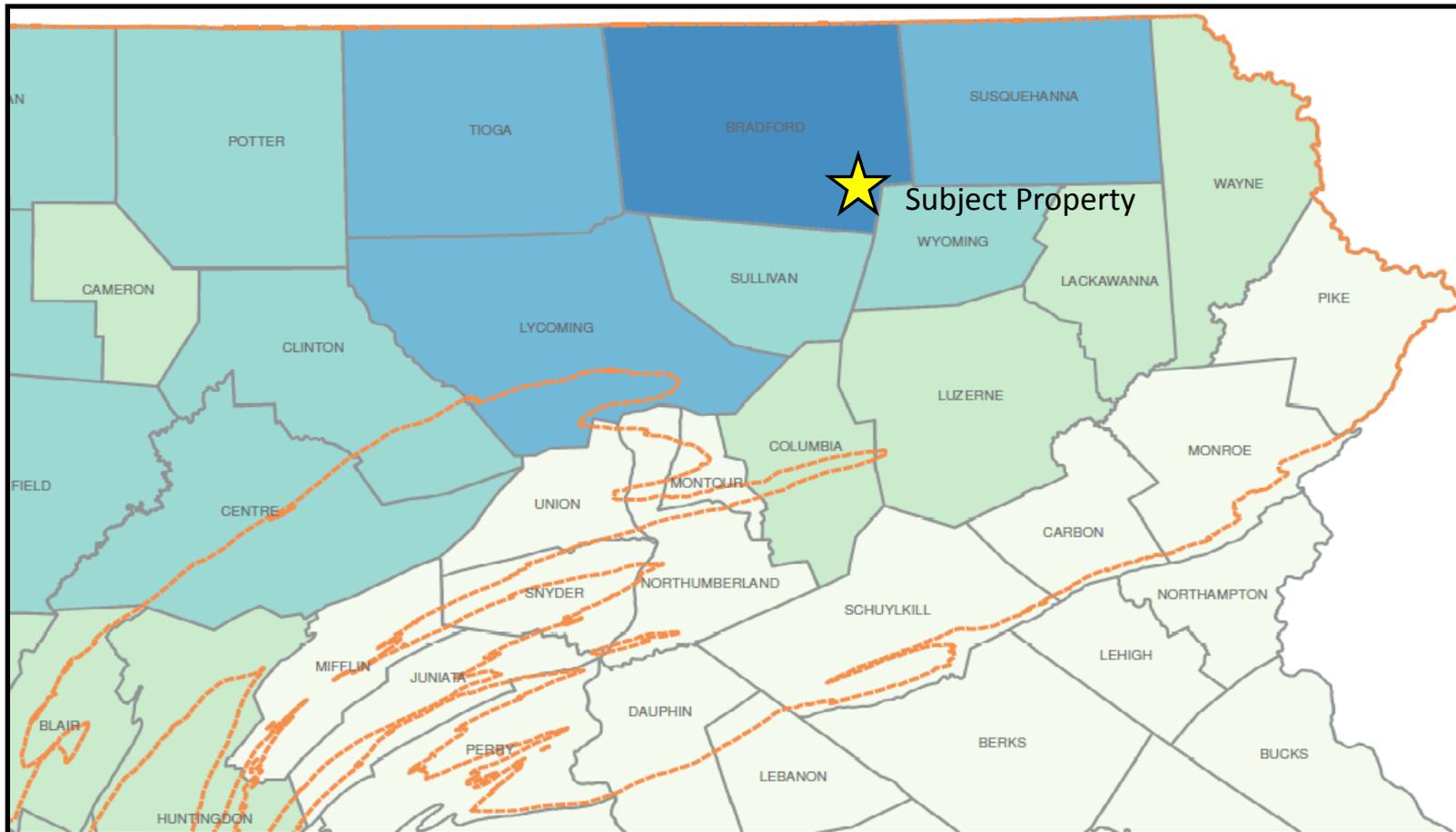
Kissell Unit#1, Shell Oil, 015-20009, TD=7,507', Wyalusing Township, Bradford County, PA



Northeast PA, Number of Marcellus Shale Well Permits by County

(from Bradford County Office of Planning & Grants, "Primer on Natural gas development in Bradford County, PA", 1/21/13)

(Data from DEP Oil and Gas Reports Website 1/21/13, http://www.portal.state.pa.us/portal/server.pt/community/oil_and_gas_reports/20297)



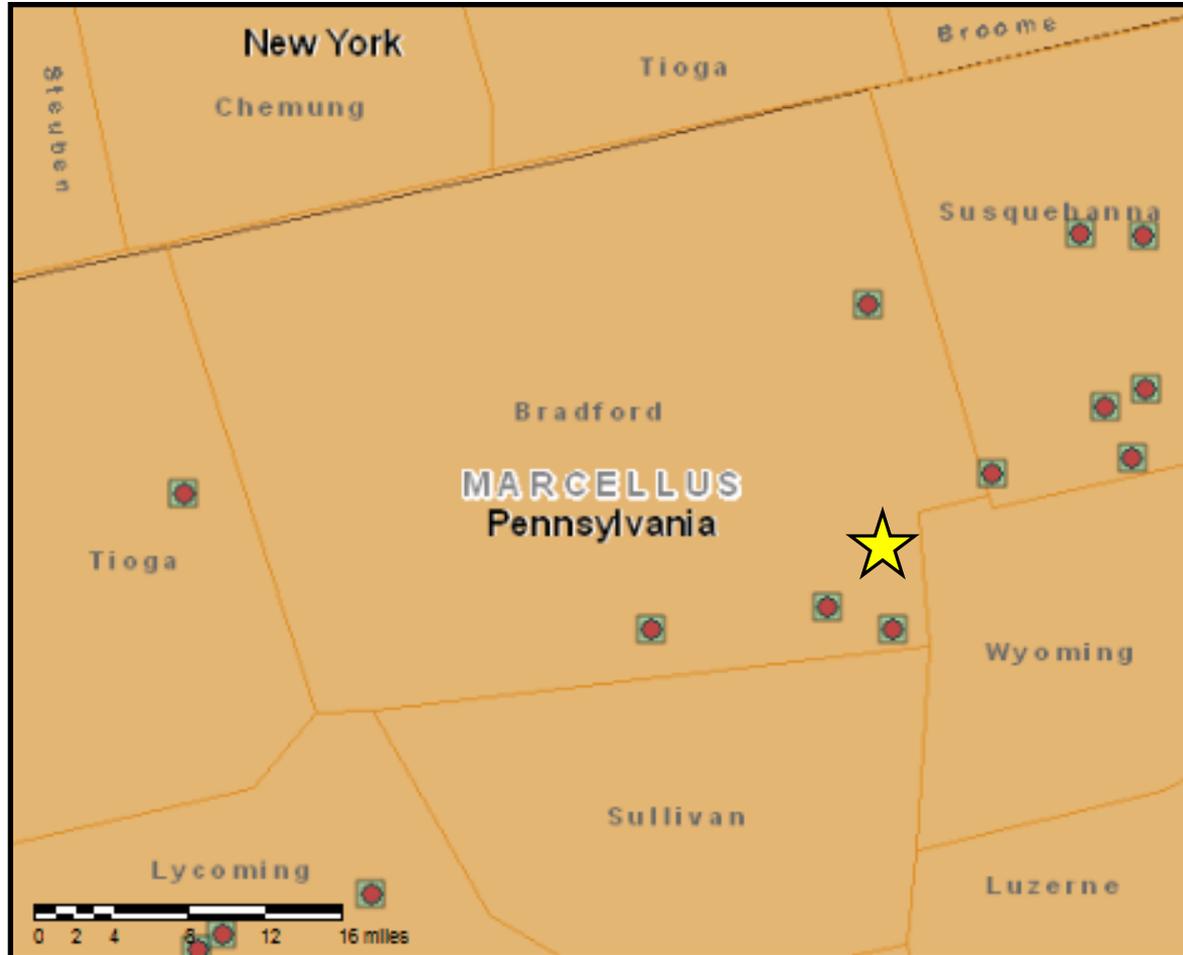
Number of Well Permits by County

2544, BRADFORD	197, SULLIVAN	23, CAMBRIA	0, CARBON	0, MONTGOMERY
1601, TIOGA	189, CENTRE	16, COLUMBIA	0, CHESTER	0, MONTOUR
1248, WASHINGTON	165, CLINTON	15, LUZERNE	0, CUMBERLAND	0, NORTHAMPTON
1171, SUSQUEHANNA	140, MCKEAN	10, VENANGO	0, DELAWARE	0, NORTHUMBERLAND
1160, LYCOMING	105, JEFFERSON	9, BLAIR	0, DAUPHIN	0, PERRY
835, GREENE	85, CLARION	9, MERCER	0, ERIE	0, PHILADELPHIA
435, WESTMORELAND	82, INDIANA	9, WARREN	0, FRANKLIN	0, PIKE
400, BUTLER	80, BEAVER	4, WAYNE	0, FULTON	0, SCHUYLKILL
400, CLEARFIELD	51, SOMERSET	3, CRAWFORD	0, JUNIATA	0, SNYDER
339, FAYETTE	46, ALLEGHENY	2, HUNTINGDON	0, LANCASTER	0, UNION
254, ARMSTRONG	38, CAMERON	2, BEDFORD	0, LEBANON	0, YORK
250, WYOMING	37, LAWRENCE	0, ADAMS	0, LEHIGH	
231, POTTER	33, FOREST	0, BERKS	0, MIFFLIN	
200, ELK	29, LACKAWANNA	0, BUCKS	0, MONROE	

Wilmot Township & surrounding townships Active Drilling Rig Count, Bradford County PA

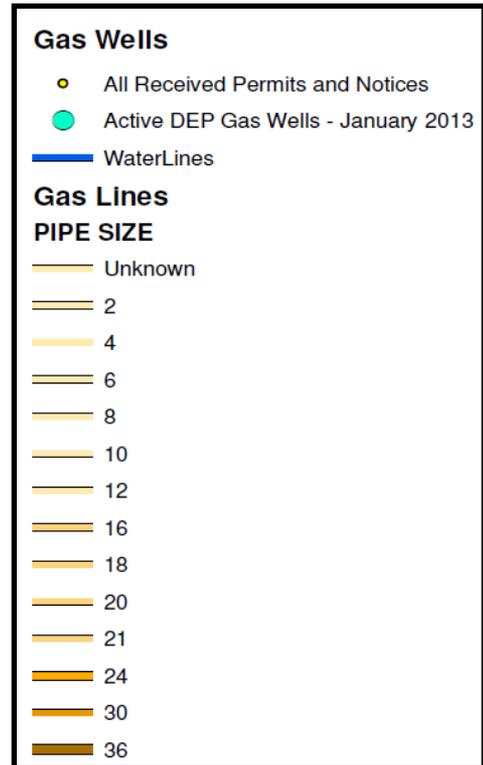
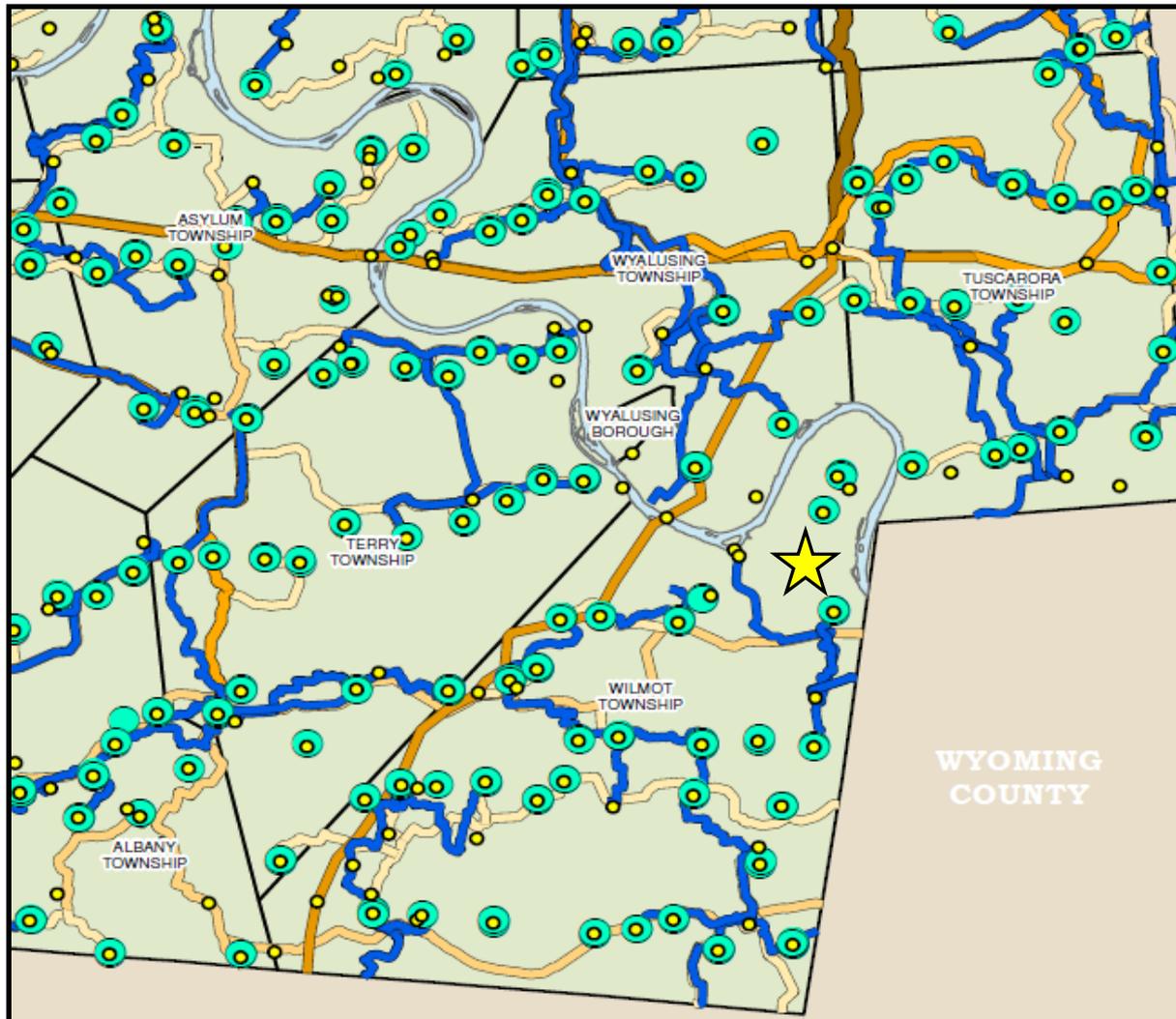
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(from Bradford County Office of Planning & Grants, "Primer on Natural gas development in Bradford County, PA", 1/21/13)

(Barker Hughes <http://gis.bakerhughesdirect.com/RigCounts>, July 12, 2013), 4 Rigs Drilling in Bradford County, PA, 2 Rigs drilling in Wilmot Township,



Wilmot Township & surrounding townships Gas Well Activity Map, Bradford County PA

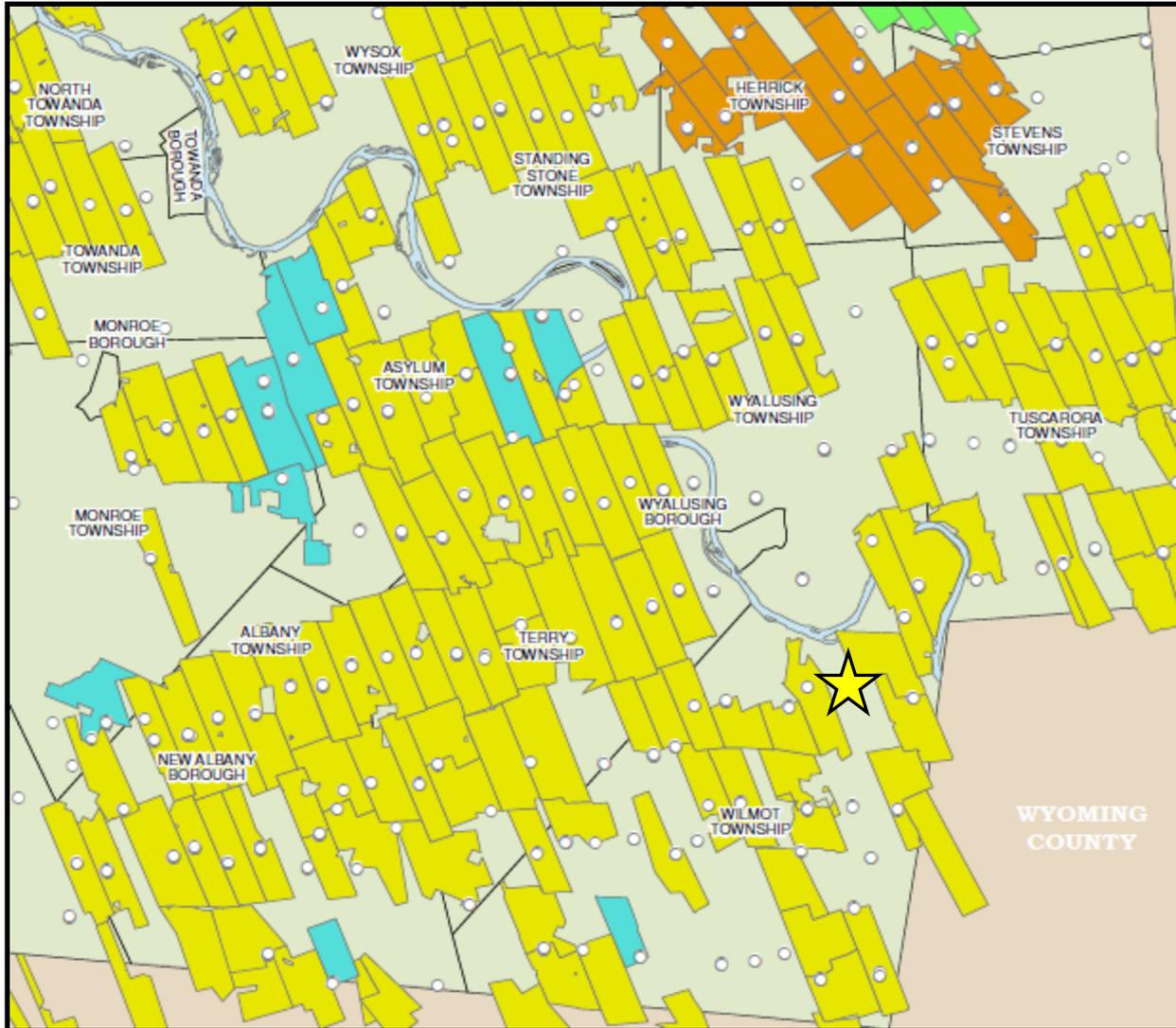
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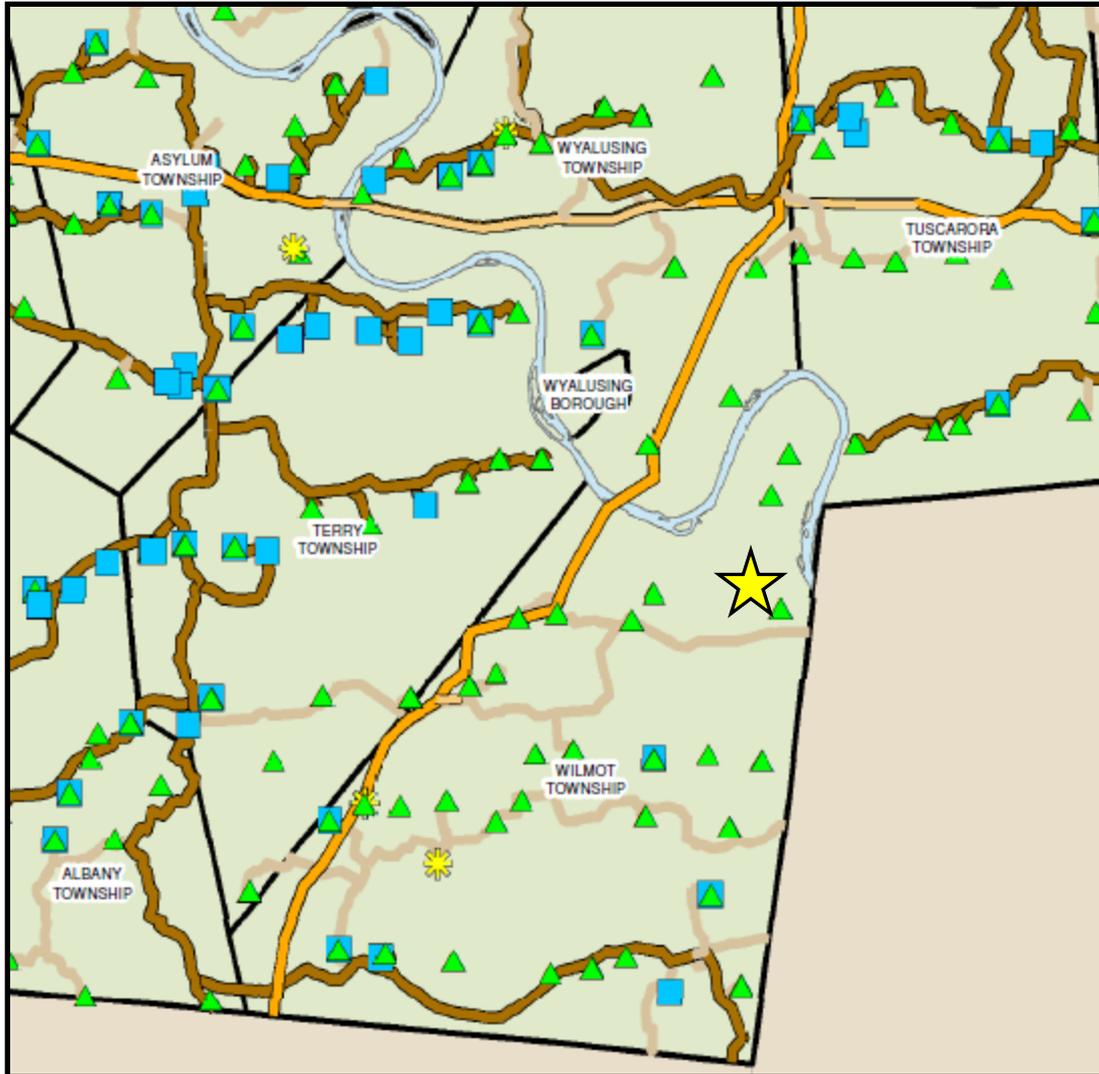


Wilmot Township & surrounding townships Production Units, Bradford County PA

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★ Wilmot Township & surrounding townships Pipeline map, Bradford County PA
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 (from Bradford County Office of Planning & Grants, "Primer on Natural gas development in Bradford County, PA", 1/21/13)



SITE STATUS

- ▲ ACTIVE
- ★ INACTIVE
- ▲ ABANDONED
- PROPOSED, NEVER MATERIALIZED

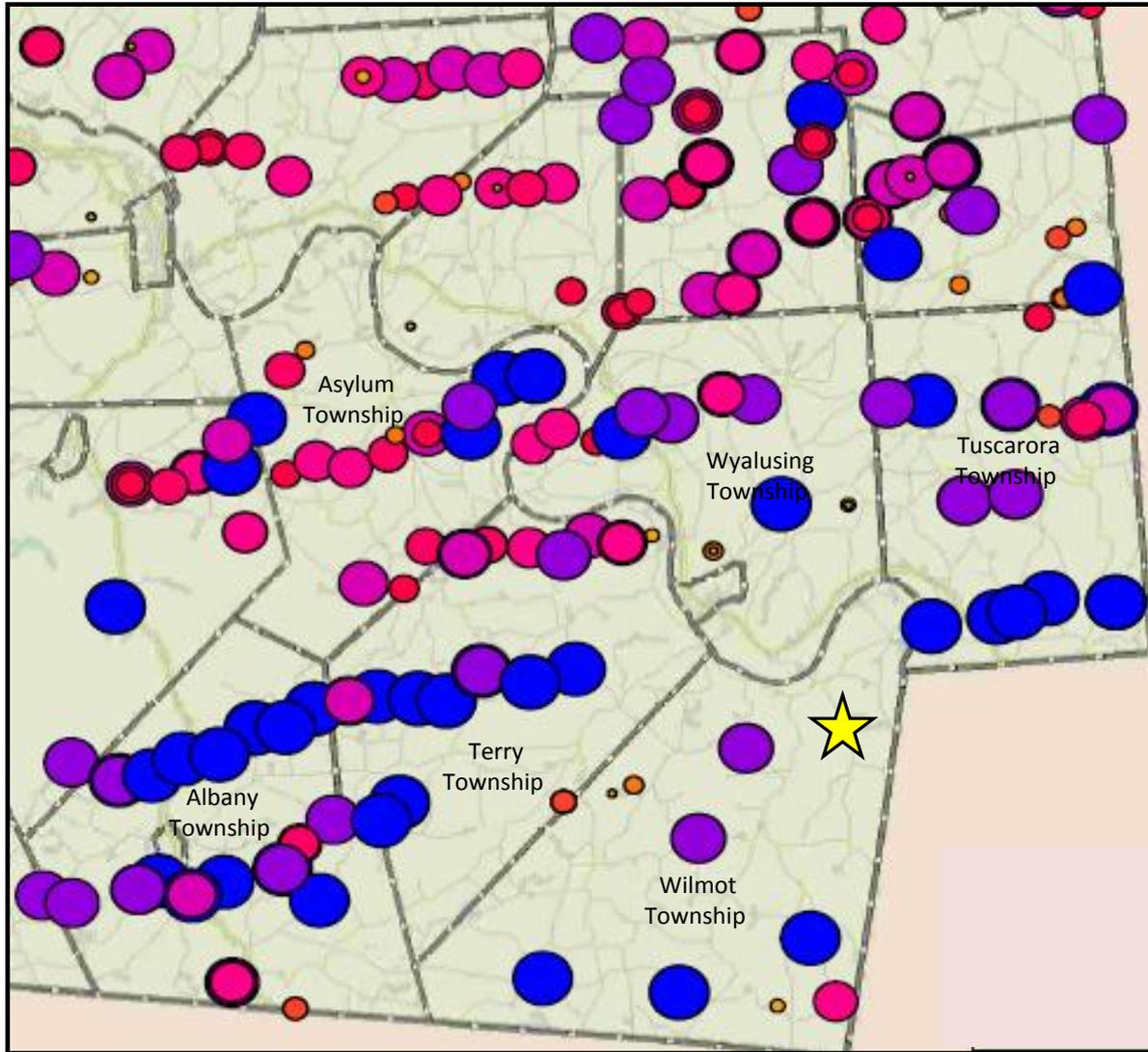
Gas Lines

LINE TYPE

- GATHERING - BUILT
- GATHERING - PROPOSED
- SERVICE - BUILT
- STORAGE - BUILT
- TRANSPORT - BUILT
- TRANSPORT - PROPOSED

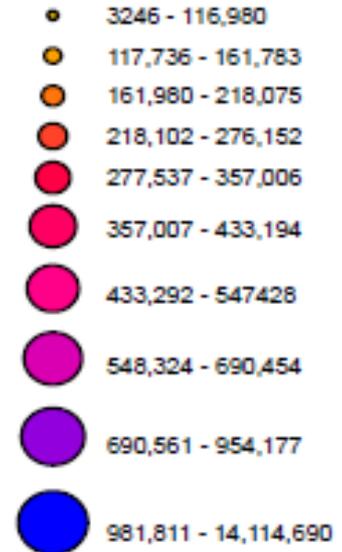
Wilmot Township & surrounding townships Regional Production map, Bradford County PA

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(from Bradford County office of Planning & Grants, "Primer on Natural gas development in Bradford County, PA", 1/21/13)



Jan-July 2013 Producing Wells

Gas Quantity (Mcf)



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- Within Core Marcellus Shale production fairway.
- Marcellus > 200 API gamma ~ 300' thick, depth ~ 7,500'
- High Marcellus Shale Total Organic Carbon (TOC) content 4.0 – 6.0 %.
- Within dry gas window $R_o = 3.2$, little if any processing required, high BTU value.
- Gas- in –place estimate for area (~ 90 Bcf/square mile).
- Bradford County, PA highest Marcellus Shale gas producing county in PA. High Marcellus Shale production within Wilmot township.
- Chesapeake aggressively drilling in the region (currently operating 5 drilling rigs).
- Tennessee 300 Pipeline ~ 5.5 miles north. Numerous drilling pads and proposed gathering lines in area.
- Excellent Economics relative to other dry gas shale plays. Near high-demand northeastern natural gas markets.
- Excellent Infrastructure (Railways, Roads) and access.
- Rural area, sparsely populated, with pro-drilling landowners.
- Abundant Water Resources near property. Within Susquehanna River Basin.