



**State of Arkansas
Oil and Gas Commission**

**Fayetteville Shale Conference
Hot Springs, Arkansas
February 2006**

**Fayetteville Shale Area
Pipeline Infrastructure**

**Stephen G Alfred
Sr Engineer
CenterPoint Energy Gas Transmission**

Transporter Vs Gatherer

Gatherer's Role

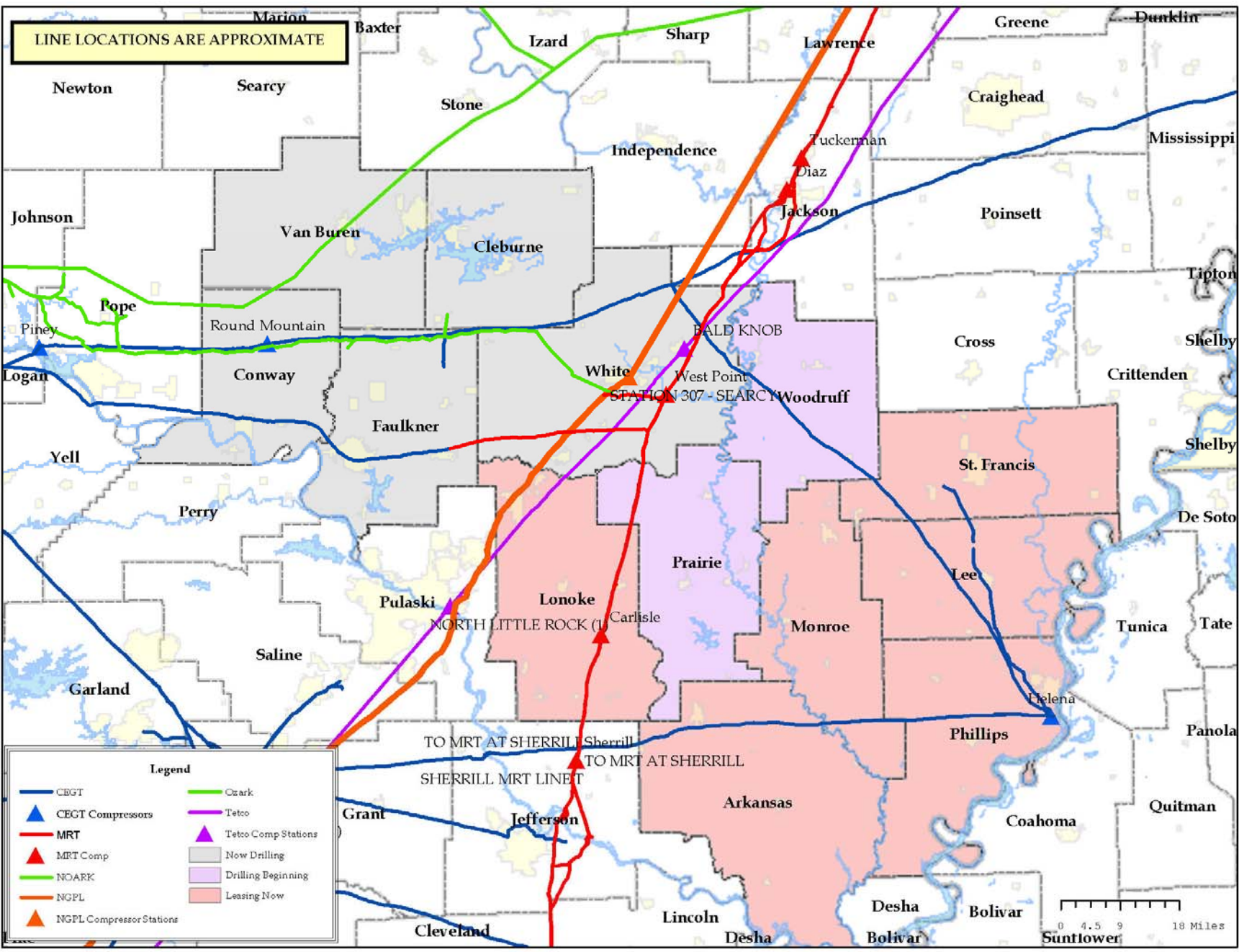
- Receives Wellhead Gas
- Performs Purification (Dehy & CO₂ Removal)
- Tenders Pipeline Quality Gas To Transporter

Transmission Company's Role

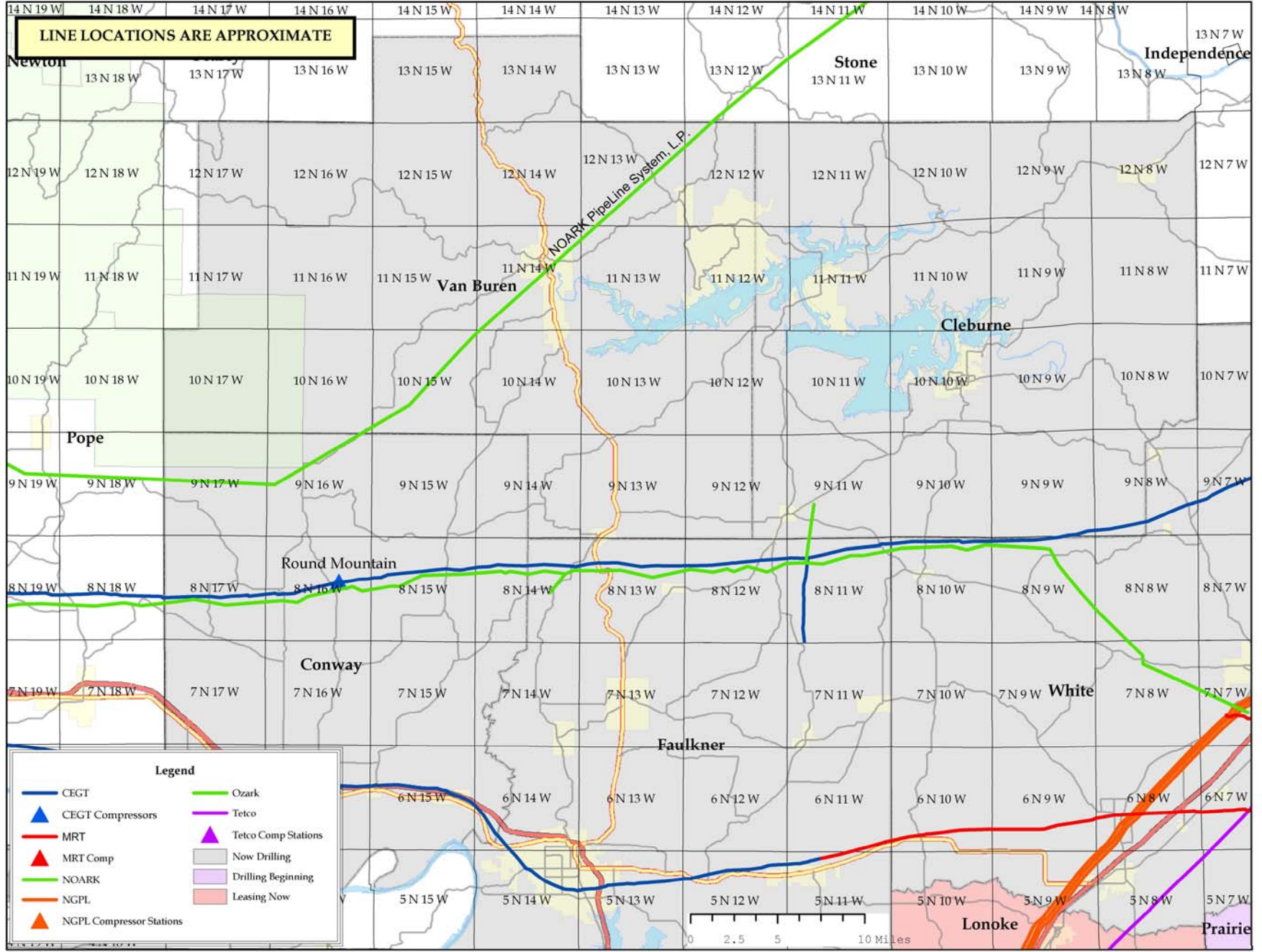
- Receives Pipeline Quality Gas From Gatherer
- Transport Across State Lines
- Tender Marketable Product To Its Customers

The Transmission Pipelines

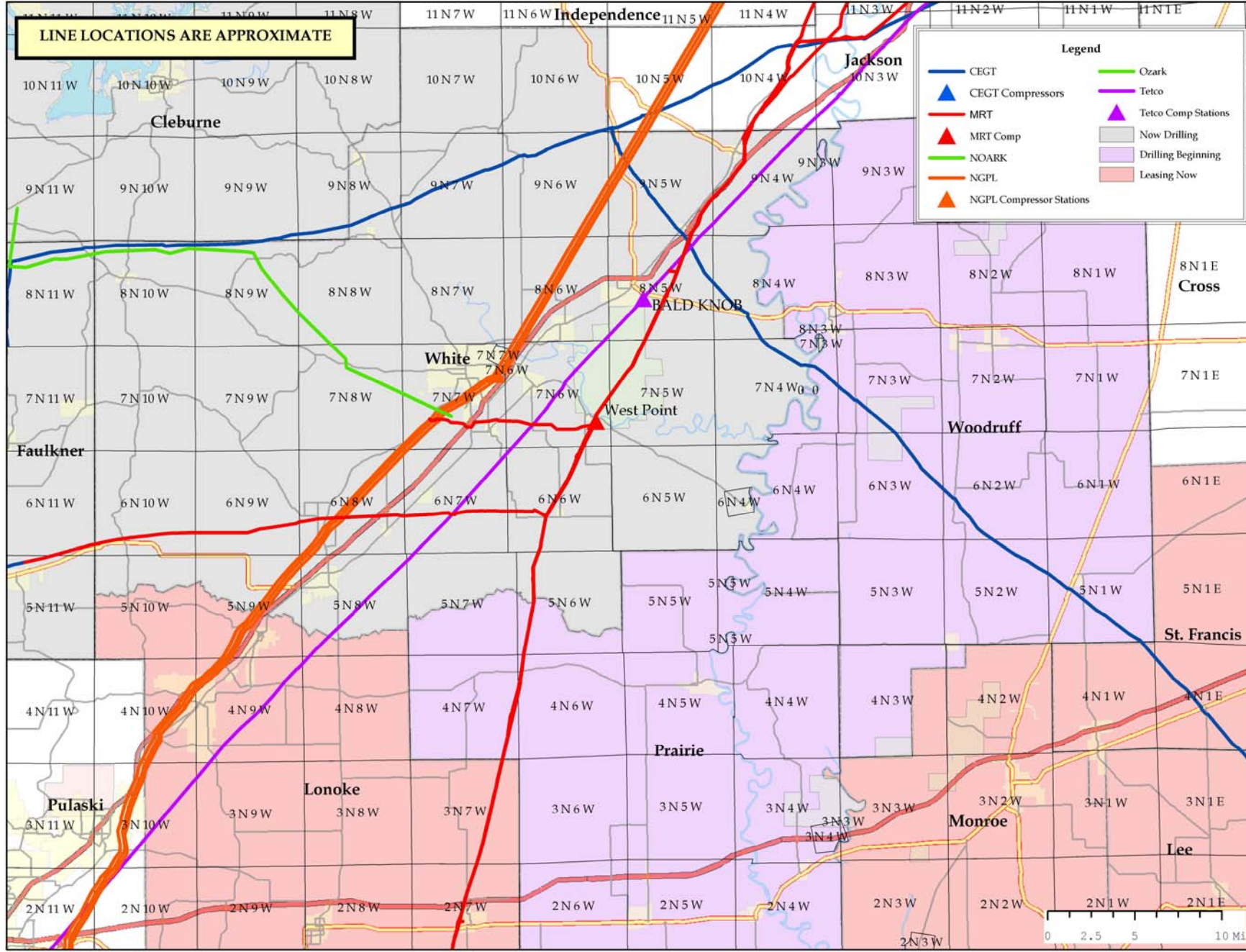
The background is a solid blue color with a subtle gradient. A thin, light blue curved line starts from the top left and arcs towards the right. A larger, semi-transparent blue triangular shape is positioned on the right side, pointing towards the center of the slide.



LINE LOCATIONS ARE APPROXIMATE



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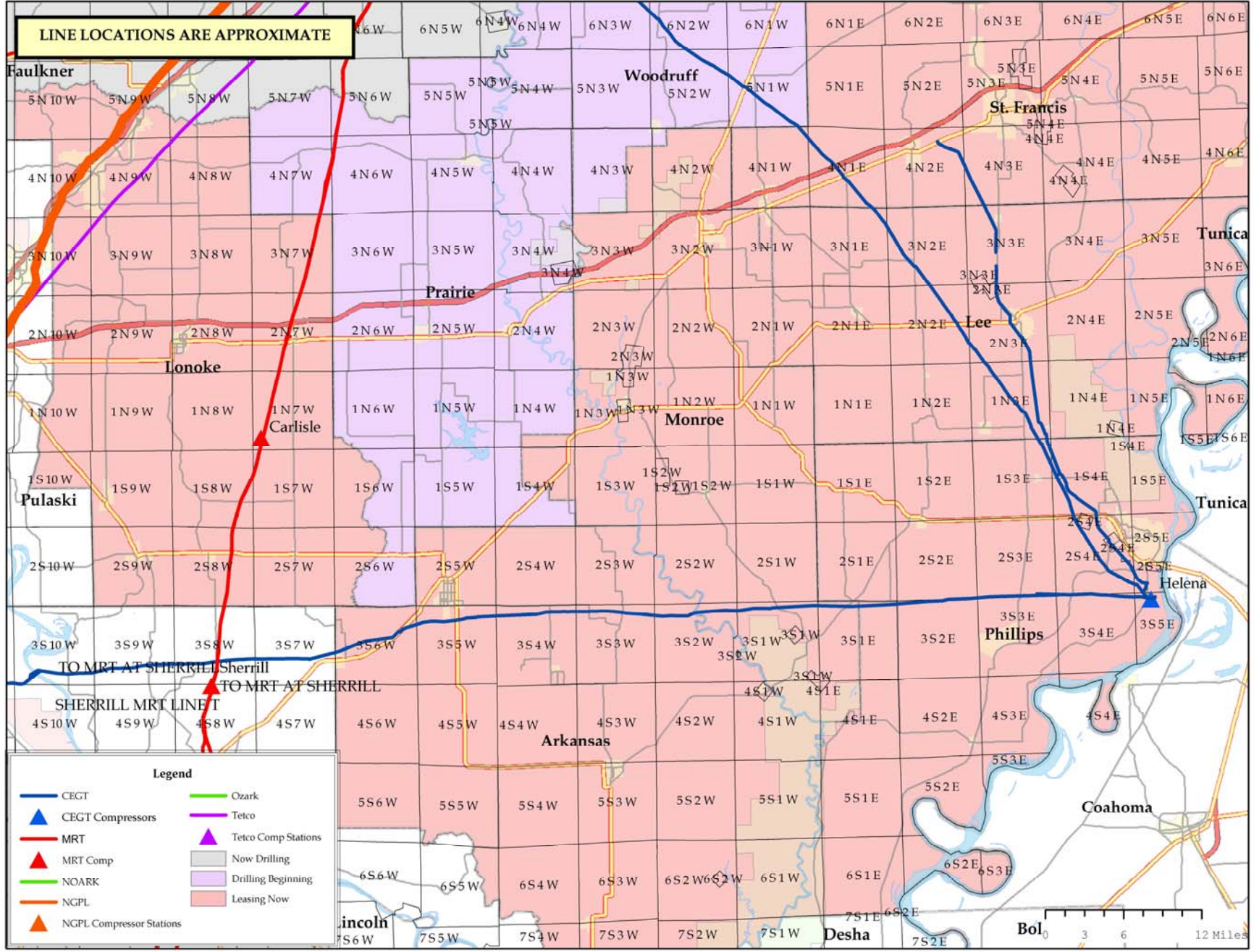


Legend

CEGT	Ozark
CEGT Compressors	Tetco
MRT	Tetco Comp Stations
MRT Comp	Now Drilling
NOARK	Drilling Beginning
NGPL	Leasing Now
NGPL Compressor Stations	



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NGPL Compressor Stations	



Interstate Pipeline Contacts

Company	Contact	Phone	E-Mail Address
CEGT	Steve Alfred	(318) 429-3891	salfred@centerpointenergy.com
MRT	Steve Alfred	(318) 429-3891	salfred@centerpointenergy.com
NGPL	David Matney	(713) 369-9218	david_matney@kindermorgan.com
OZARK	Tom Seng	(918) 496-4931	tseng@aplmc.com
TETCO	Gary Welsch	(713) 627-5803	gjwelsch@duke-energy.com

Main Producer Concerns

1. Connection Cost
2. Capacity
3. Pipeline Pressures
4. Construction Time
5. Pricing

Connection Cost

1. Cost & Participation Vary With The Company

- Pipeline Constructs Vs Producer Builds To Spec
- EGM & Communications Required
- Gas Chromatograph Required For Higher Flow Rates

2. Facilities & Costs Vary With The Volume

- Larger Volumes Require Larger Meters And Taps

3. Special Circumstances

- Monitoring And Control Equipment

Capacity

1. Before You Drill ...

- Where's The Market?
- Can That Pipeline Take My Gas?
- Distribution Likely Not An Option

2. Check With The Pipeline Contact

Pipeline Pressures

- 1. Verify With Contact Person**
 - System configuration could change
- 2. Compressor Stations**
 - Higher pressures downstream
- 3. In General ...**
 - CEGT's System - 800 to 1,000 psig
 - MRT - Low 600's to 720 psig
 - NGPL - From low 700's to 858 psig
 - NOARK - From 800 to 850 psig
 - OZARK - From 850 psig to 1,100 psig
 - TETCO - Varies seasonally, call Gary

Construction Time

1. Normal Time – 8 to 10 weeks

- After Receipt Of Facilities Agreement And Funds
- Environmental Permitting
- Landowner Notification

2. Contingencies Could Increase Time

- Landowner / ROW Acquisition Problems
- Material Shortages
- Communication Issues
- Legal Review

3. Suggestions

- Don't Scrimp On The Tap Size

Quality Requirements

- 1. Water Content**
 - Less than 7# per mmcf/d
- 2. BTU**
 - Min Ranges From 950 to 975 BTU/cf
 - Some Set A Max Of 1,100 BTU/cf
- 3. Nitrogen**
 - 2 to 3%
- 4. CO₂**
 - 2 to 3%
- 5. Other Specs**
 - Hydrocarbon Dew Point, Total Sulfur
 - Dust & Other Solids
 - Temperature ($40 < T < 120$)

Approximate Pricing

1. **Prices Change Frequently - \$5 To \$10 In 2005**
2. **Indices Published In Gas Daily & Inside FERC**
3. **CEGT**
 - CEGT East Less 2 To 3 Cents
4. **MRT**
 - No Index Published
 - Use CEGT East Plus 40 Cents Unless Basins Tighten
5. **NGPL**
 - NGPL TexOk + A Few Cents For Fuel
6. **NOARK & OZARK (ATLAS)**
 - Call Tom Seng
7. **TETCO**
 - No Index For Bald Knob Area
 - Possibly Somewhere Between ELA And M1-Kosci

Closing Comments

Presentation Materials

- **Please Write On The Back Of Business Card What You Would Like And Leave It With Me**

Questions?