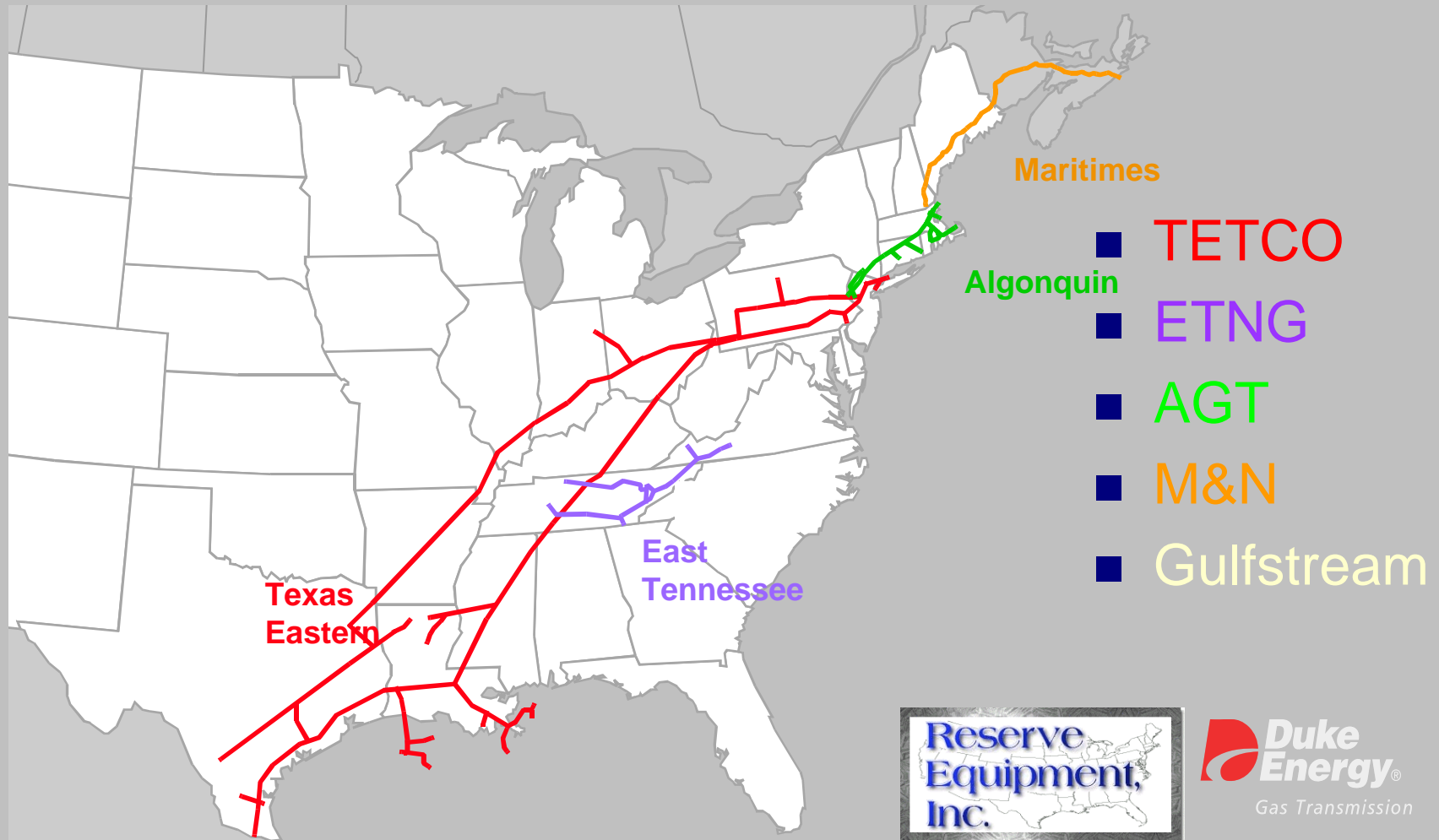


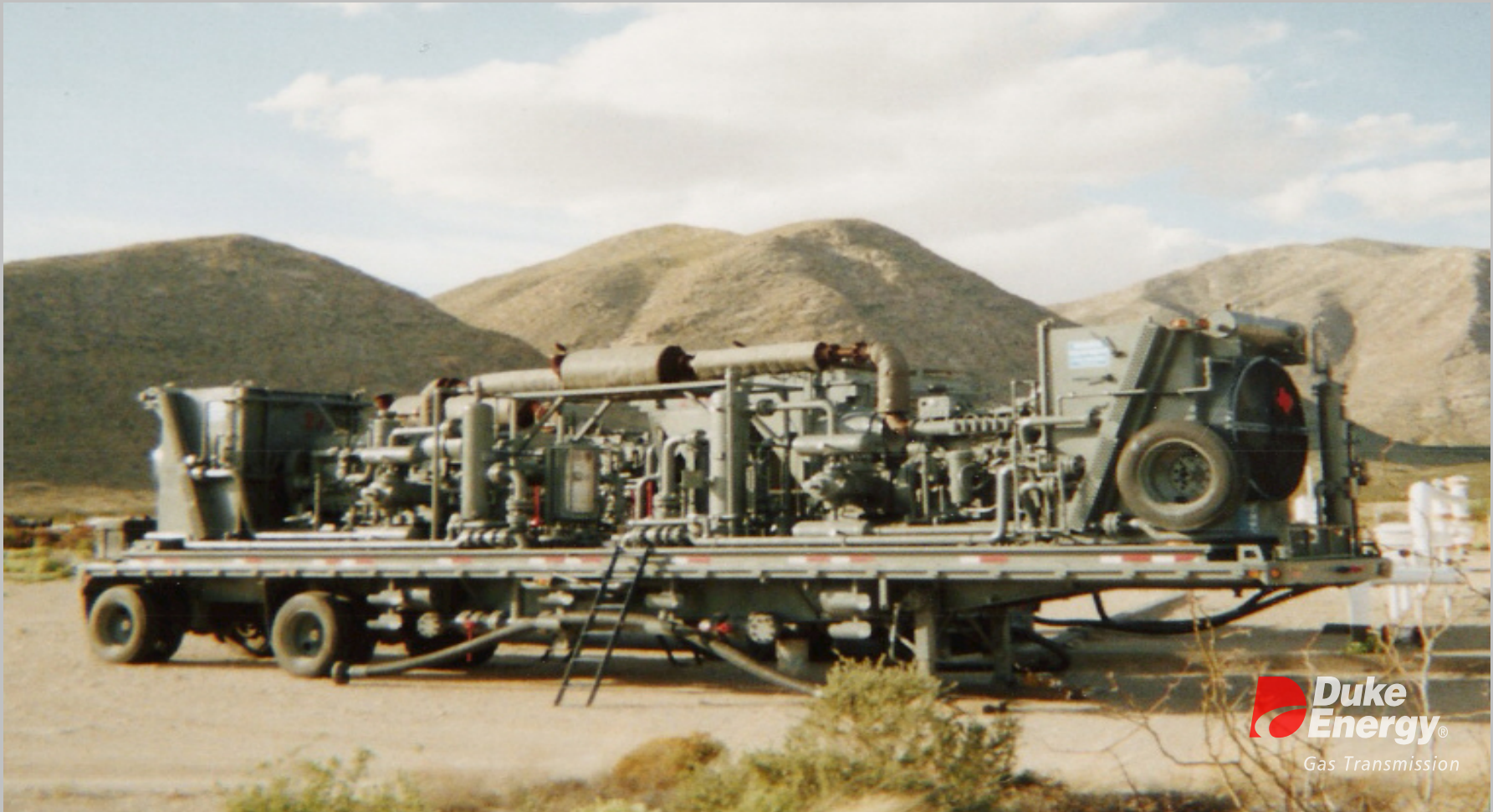
Gas Savings Through Pipeline Pump Down Techniques





RESERVE EQUIPMENT INC.
4101 Dayco • Houston, Texas 77092-4402

PIPELINE EVACUATION SERVICES
SPECIAL COMPRESSION PROJECTS
Tel: (713) 939-8988 • Fax: (713) 939-8994

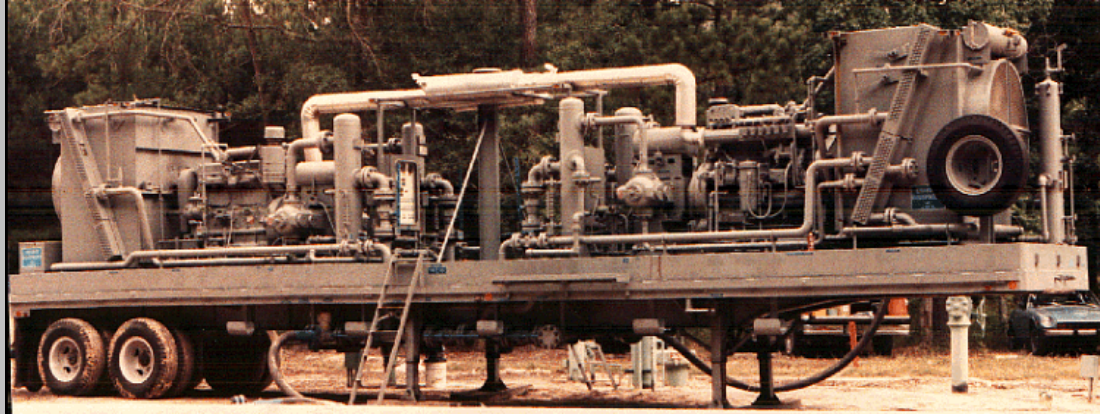


Duke Energy
Gas Transmission





All Of Reserve's Evacuation Units are Trailer Mounted & Entirely Self-Contained



Suction & Discharge Connections Are Made Up Using High Pressure Gas Transfer Hose



RESERVE EQUIPMENT'S AREA OF OPERATIONS / 2004 PIPELINE EVACUATION PROJECTS



ENVIRONMENTAL IMPACT

One Mile 30" Line @ 700 psig

V O C EMISSIONS:
1,130 lbs

GAS VALUE (\$10/MCF)
\$13,300

Ten Miles 30" Line @ 700 psig

V O C EMISSIONS:
1,469 lbs

GAS VALUE (\$10/MCF)
\$133,000

Requesting A Proposal



- Fill out & fax in our Request for Proposal Form.

RESERVE EQUIPMENT, INC.
 Web Site: www.reserveequipment.com

4101 Dayco, Houston, TX. 77092
 Tel: (713) 939-8988
 Fax: (713) 939-8994
 E-mail: jpmreserve@aol.com

REQUEST FOR PROPOSAL

Company: _____

Contact: _____

Phone: _____

Fax Number: _____

Project:	Estimated Date Of Start-up	_____
▶ Line Identification	_____	
▶ Total Pipeline Length	_____	Miles
▶ Pipeline Diameter	_____	Inches
▶ Pipe Wall Thickness	_____	Inches
▶ Project Location	_____	
▶ Dollar Value of Gas	_____	/ Mcf.
▶ Starting Suction Psig.	_____	Psig.
▶ Desired Final Suction Psig.	_____	Psig.
▶ Estimated Discharge Psig.	_____	Psig.
▶ Min/ Max Time Allowed	_____	Hours

- Your Internal Line ID (Number or Name)
- Total Length of line to be evacuated:
- Line Diameter:
- Pipe-Wall Thickness
- Project's Location / Nearest Town-City:
- Gas Value Assigned By Your Company:
- Line Pressure @ Suction Point:
- Your Desired Final Line Pressure:
- Line Pressure @ Discharge Point:
- How Long Does Reserve Have to Reach your Final Pressure?:

Visit us at:

www.reserveequipment.com

- Click the link for “[Proposals](#)” & provide the requested information.
- Most proposal requests are responded to within 24 hours or less.

PROJECT PROFILE



RESERVE EQUIPMENT INC.
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04/02/04 TLT - 1032 - A

PROJECT PROFILE		FROM: JAMES MEREDITH		
CONTACT: DOUG VOTH	PHONE: (859) 854-3993 x5621		FAX: (859) 854-3317	
CUSTOMER: TX EASTERN GAS TRANS	LINE:			
JOB LOCATION: DANVILLE, KY				
TARGET LINE:	19	MILES	30	IN. DIA
STARTING PSIG:	750	DISCHARGE PSIG:	750	WALL
MMSCF IN LINE:	27	EST. START DATE:	SUMMER 2005	
VALUE @ \$	0	/MCF IS \$	0	
BASIC CHARGES:				
(3) 300 HP PIPELINE EVACUATION SYSTEMS INSTALLED AND OPERATED AT YOUR SITE FOR THE FIRST 18 HOURS...(MINIMUM).....\$ 0				
ADDITIONAL TIME AT SITE.....\$ 0 / HR				
HOURS OF OPERATION	LINE PRESSURE (PSIG)	GAS REMOVED (MM)	VALUE OF GAS (\$)	COST OF PROJECT (\$)
18	235	18.91	0	0
26	145	21.88	0	0
34	90	23.66	0	0
42	55	24.78	0	0
OPERATING HOURS REQUIRED TO BREAK EVEN.....			\$0	2 HRS
PROJECT WILL STAY COST EFFECTIVE FOR.....				44 HRS

Reserve's Proposal I.D. Number
(Refer to this number in all future correspondence relating to this project.)

Target Line Conditions –
(Including Total Gas Contained In The Line & the Value Based on Information Provided in the Initial Proposal Request)

Basic Charges –
(Include Mobilization & De- Mobilization of Equipment, Two-Man Crew, Set-up & Operation of Specified Number of Compressors for the first 18 Hours. There is an Hourly Charge for Operation Beyond the Initial Minimum Basic Charge.)

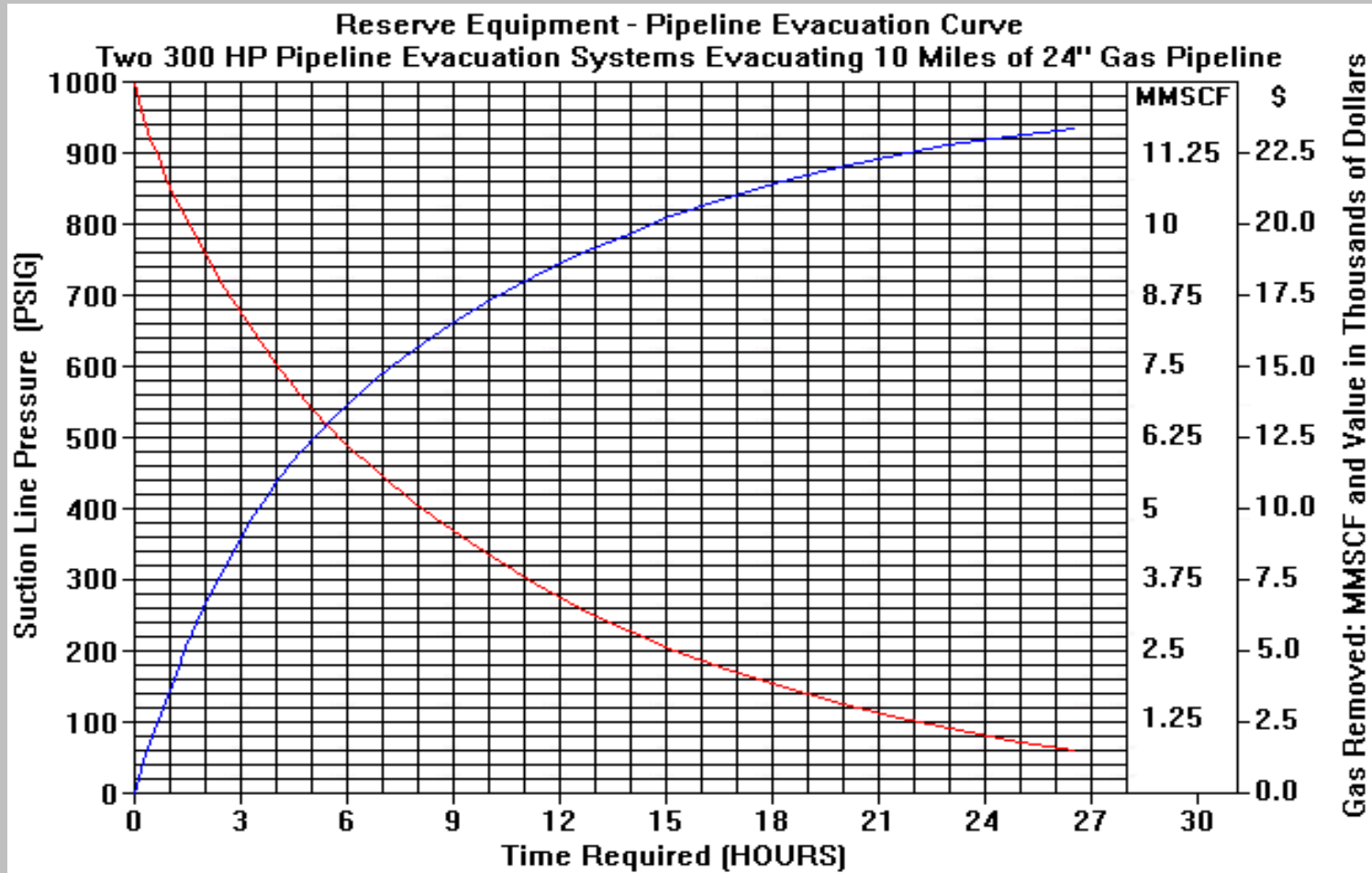
Project Profile –
(This Section Shows Pump-Down Times (Usually in 8 or 10 Hour Blocks) Beginning W/ the Minimum 18 Hours & Following the Evacuation Down to the Requested Final Pressure)

Operating Hours Required to Break Even –
(The Amount of Time it Takes Reserve's Equipment to Transfer an Amount of Gas With A Value Equal to the Basic Charge).

Cost Effective Period -
(This is the Total Number of Hours Reserve's Equipment will Continue to Transfer an Amount of Gas Equal in Value to the Hourly Charge.)

Evacuation Time Chart

10 Miles – 20 Inch Line



Evacuation Time Table – Two Systems Evacuating 10 Miles of 30 Inch Line From 700 PSIG to 20 PSIG.

RESERVE EQUIPMENT Compressor Performance Calculation Summary Page 4

Customer: E P A SAMPLE 600hp (10mi - 30inch) Job:

Total Gas: 13.1(MMSCF) In Pipeline at Initial Pressure 700 (PSIG)

Suction Line Pressure PSIG	Required Time Hr	Gas Removed MMSCF	Value of Gas Removed 1000\$	Average Clearance Percent	Time Increment Hour
680	0.3	0.41	4.1	13.6	0.3
660	0.7	0.83	8.3	13.6	0.3
640	1.0	1.23	12.3	13.6	0.3
620	1.3	1.64	16.4	13.6	0.4
600	1.7	2.04	20.4	13.6	0.4
580	2.1	2.44	24.4	13.6	0.4
560	2.5	2.84	28.4	13.6	0.4
540	2.9	3.23	32.3	13.6	0.4
520	3.3	3.62	36.2	13.6	0.4
500	3.7	4.01	40.1	13.6	0.4
480	4.2	4.39	43.9	13.6	0.5
460	4.6	4.78	47.8	13.6	0.5
440	5.1	5.16	51.6	13.6	0.5
420	5.7	5.53	55.3	13.6	0.5
400	6.2	5.91	59.1	13.6	0.5
380	6.8	6.28	62.8	13.6	0.6
360	7.4	6.65	66.5	13.6	0.6
340	8.0	7.02	70.2	13.6	0.6
320	8.7	7.38	73.8	13.6	0.7
300	9.5	7.74	77.4	13.6	0.7
280	10.3	8.10	81.0	13.6	0.8
260	11.1	8.46	84.6	13.6	0.9
240	12.1	8.82	88.2	13.6	0.9
220	13.1	9.17	91.7	13.6	1.0
200	14.3	9.52	95.2	13.6	1.2
180	15.6	9.87	98.7	13.6	1.3
160	17.1	10.21	102.1	13.6	1.5
140	18.9	10.56	105.6	13.6	1.8
120	21.1	10.90	109.0	13.6	2.2
100	23.8	11.24	112.4	13.6	2.7
80	27.0	11.57	115.7	13.6	3.2
60	31.1	11.91	119.1	13.6	4.1
40	36.5	12.24	122.4	13.6	5.4
20	44.7	12.57	125.7	13.6	8.2



- Reserve Has Been in the Compression Business Since 1960 & The Pipeline Evacuation Business Since 1975. We Performed in Excess of 200 Pipeline Evacuation Projects in 2004. All Of Reserve's Equipment Operators are DOT Operator Qualified to Perform The Covered Tasks Associated with Pipeline Evacuation Projects.

