

TITAN® & SMARTSTORE® YOUR MOBILE PIPELINE™



HEXAGON
COMPOSITES

Dave Myers-Business Development Manager-Mobile Pipeline™



THE MOBILE PIPELINE™ – NATURAL GAS REACHING FURTHER



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COMPOSITES

Problem solved. Mobile Pipeline!




Got one with miles to go?





THE MOBILE PIPELINE™ – HOW IT WORKS




Mother station on pipeline fills NG into TITAN® @ 3,600 PSI



Full TITAN® travels to offloading station @ 3,600 PSI



Expendable TITAN® travels to Mother Station @ 150 PSI

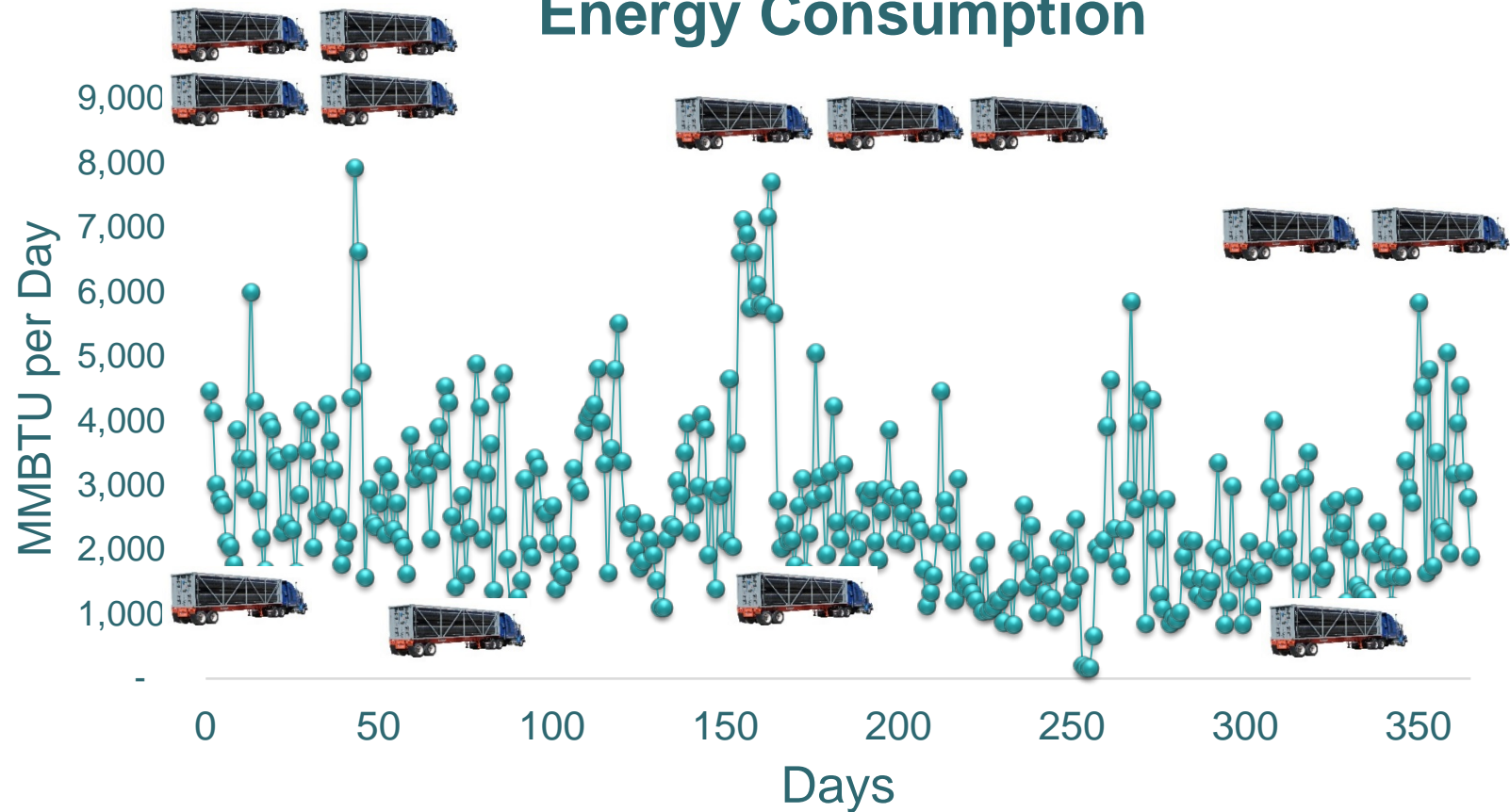


TITAN® is offloaded at end users decanting station



SCALABLE & FLEXIBLE

Energy Consumption





MOBILE PIPELINE™ - APPLICATIONS

1

Industrial/ commercial



Usage :

- Utilities
- Energy Islands
- Industrial plants
- Back up power generation

Key drivers:

- Lack of pipeline
- Fuel price spread
- Emissions

2

Oil/gas upstream



Usage:

- Drilling rigs
- Fracking fleets
- Recovery of gas (flaring)

Key drivers:

- Fuel price spread
- Margin pressure on shale industry
- Emissions

3

High horse power



Usage :

- Remote power generation in mining
- Fuel locomotives

Key drivers:

- Fuel price spread
- Emissions

4

Agriculture sector



Usage

- Agriculture pumps

Key drivers:

- Fuel price spread

5

NG transport on ships



Usage

- CNG transport on or fuelling of marine ships
- Collection of boil off on LNG ships

Key drivers:

- Fuel price spread
- Emissions



INDUSTRY & COMMERCIAL – SOLID SAVINGS



- Total savings on fuels in average 20 to 40% to prior use
- Flexibility in fuel supply can be maintained
- Substantial reduction of emissions
- Easy conversion
- Large potential for utilities



STEEL TO COMPOSITE – THE EVOLUTION

Weight of storage per scf NG



Steel bottle trailer
140,000 scf @ 2,000
PSI



Steel tube trailer
190,000 scf @ 2,900
PSI

TITAN4™
364,000 scf @ 3,600
PSI



TITAN™ XL
521,000 scf @ 3,600
PSI



Portable volume in scf NG



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LEADING PRODUCTS

SMARTSTORE®



TITAN®4



TITAN®XL





KEEPING IT SAFE – ROLLOVERS & SHOOTOUTS!

- Closed tank valves during transport
- Solid frame structure
- Safe vent procedures
- No leakage



OVERVIEW



HEXAGON
COMPOSITES

TECHNICAL OVERVIEW

Type	40' TITAN 4 module	TITAN™ XL trailer	SMARTSTORE	2 X SMARTSTORE
Size	40'	40'	20'	2 X 20'
Trailer/Chassis	No	Yes	No	No
Number of Tanks	4	12	15	30
Total Water Volume (approximate)	8,980 G (34,000 L)	13,010 G (49,250 L)	6122 G (23,175 L)	12,244 G (46,350 L)
Operating Pressure	3,626 psi at 59°F (250 bar at 15°C)	3,626 psi at 59°F (250 bar at 15°C)	3,626 psi at 59°F (250 bar at 15°C)	3,626 psi at 59°F (250 bar at 15°C)
Estimated Gas Volume*	364,059 scf (10,086 scm)	526,612 scf (14,912 scm)	245,000 scf (6,900 scm)	490,000 scf (13,800 scm)
Estimated Gas Mass *	16,677 lb (7564 kg)	24,524 lb (11,124 kg)	11,175 lb (5,070 kg)	22,350 lb (10,140 kg)
Estimated Tare Weight*	34,613 lb (15,700 kg)	48,023* lb (21,782 kg)	19,000 lbs. (8618 kg)	38,000 lbs. (17,236 kg)
Estimated Loaded Weight	51,290 lbs. (23,265 kg)	72,547 lb (32,906 kg)	30,175 lbs. (13,687 kg)	60,350 lbs. (27,374 kg)
Diesel Equivalent (approximate)	2,576 G (9,753 L)	3,788 G (14,340 L)	1,726 G (6,533 L)	3,452 G (13,066 L)
Length	40 ft (12.19) m	40 ft (12.19) m	20 ft (6.1 m)	40 ft (12.2 m)
Height*	8 ft (2.44) m	13.5* ft (4.11) m	9.50 ft (2.90) m	9.50 ft (2.90) m
Width	8 ft 2.44 m	(8.5 ft) (2.59) m	(8.37 ft) (2.55) m	(8.37 ft) (2.55) m

*(CNG @ 15°C, 0.75 kg/scm / 0.04682 lb/scf, 59°F)