SPARTAN CONTROLS

Experience Industrial Innovation

SpartanPRO™ Multi-Viscosity

Reduce Diluent Costs with Improved Viscosity Blending

SpartanPRO Multi-Viscosity

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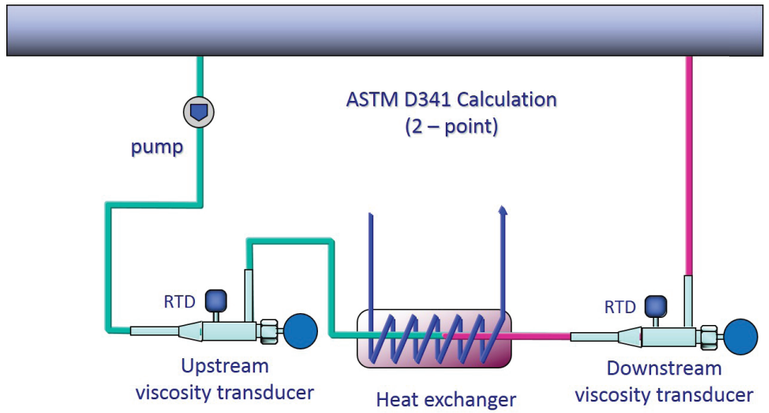
Over-blending wastes diluent. Whether using manual grab-sampling or a single viscometer, failing to blend precisely at referral viscosity leads to unnecessary costs

What If... You Could:

- Dramatically reduce diluent cost by eliminating over blending?
- Automate viscosity blending to ground temperature in real-time?
- Simplify system calibration and maintenance while reducing lab sampling?
- ROI occurs within months, not years?

Optimizing the Bitumen-to-Diluent (B:D) ratio using ASTM D341 calculations with real-time viscosity measurements at two temperatures reduces diluent costs and maximizes pipeline capacity. Blending closer to pipeline viscosity limits at ground temperature can save from hundreds of thousands to millions of dollars, depending on production scale, with current diluent costs at $60/bbl.

Our turn-key solution integrates fast-loop, measurement, and host systems, enabling Advanced Process Control and continuous improvement.



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Dual-Viscosity Modernization

Challenge

Traditional dual-viscosity systems (DVS) present a challenge with Life Cycle Management as these systems have matured, parts and repair services are no longer available, and the risk of failures are increasing.

Solution

Modernize with current instrumentation, control platforms and data integration to mitigate operational risk due to downtime and provide process insight for optimization opportunities.

What If... You Could:

- Upgrade existing Dual-Viscosity System hardware to a fully supported and integrated solution?
- Blend closer to target without exceeding ground viscosity limits?
- Simplify system calibration and maintenance while reducing lab sampling?
- Integrate a turn-key solution requiring no major piping or electrical modifications?

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Specs

Potential savings example, for illustrative purposes only

Uptime (Days/Year)	365	365	365
Bitumen to Diluent Ratio (Current)	2,686	2,686	2,686
Bitumen to Diluent Ratio (Projected)	2,703	2,703	2,703
Bitumen Production Rate (m3/hr)	750	150	50
Diluent Prince ($/bbl)	60	60	60
Expected Savings (CDN$/Year)	**$5,805,828**	**$1,161,166**	**$387,055**

Technical Specifications	
Enclosure	24” x 24” X 10” Mild Steel w/ Powder Coat
Ingree Protection	Nema 4
Environment	0C - 40C
Area Classification	CL1, DIV2 Goups C,D (suitable for Zone 2)
Certification	CSA STD 22.2 Certified
Controller	FB3000 Controller
	12 Channel Mixed I/O Module
	Mixed I/O Personality Module
HMI	7” Touch Screen
Communication	DA50 Gateway

Next Steps

Contact Spartan Controls to schedule an audit of your traditional Dual-Viscosity System or a Blending Data Analysis Study on your present-day blending performance. We will assist you in choosing the best solution to suit your application needs.

Call us or request a quote online 24/7

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