IPEC 2019
October 7 - 9, 2019

Introduction

Recover Energy Services Inc. (“Recover”) has developed a patented technology to recycle drilling waste. Recover’s business plan is focused on using a new technology to recycle waste that would have otherwise been disposed of into landfills.

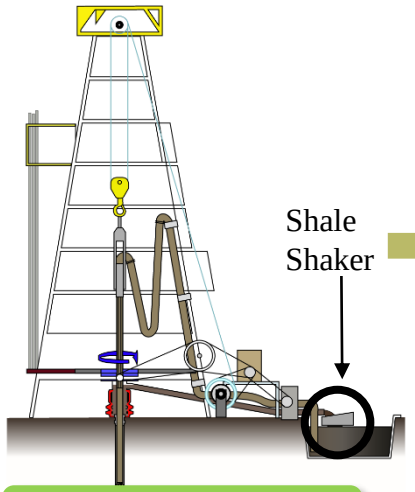
- The energy industry predominantly uses oil-based drilling fluids to drill horizontal wells. Oil-based drilling fluids provide many benefits to the operator including better well bore stability, improved hydraulics, enhanced penetration rates and increased lubricity, while helping industry meet its initiative to reduce water consumption. As the well is drilled, the drill cuttings from the well bore contain drilling fluid; this is commonly known as drilling waste. The energy industry primarily manages oil-based drilling waste by separating the liquids phase from the solids phase prior to disposal. The solids phase often requires additional stabilization prior to landfill disposition and the liquids phase is typically disposed of using slurry injection facilities.

- Recover is an environmental clean technology company with a patented process for cleaning oil-based drilling waste. Our technology recovers base oil from drilling waste while providing a significant reduction in carbon dioxide emissions. Recover is in the business of recovering energy and our team is proud to help make the energy industry more sustainable.

Current Industry Practice

- Adjacent is a photo of a typical Permian Basin landfill. This particular landfill is within ~ 200 meters of homesteads.
- We estimate there are ~ 50 landfills of this nature within North America.
- In addition to being aesthetically unappealing, landfills are susceptible to leachate, which can cause harm to surrounding surface and/or ground waters, soils, agriculture, etc.

Current Industry Practice (continued)



Typical Drilling Rig

OBM & Cuttings Exit Shale Shakers

Current Industry Practice

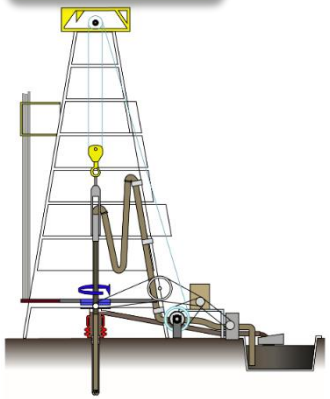
Sealed-end dump trailer unloading at a Class II Industrial Landfill

- Given the drilling waste contains high amounts of oil and chlorides, the waste must be separated into liquids and solids phases and then trucked and stabilized prior to being sent for storage in specialized landfills and slurry injection wells.
- Landfill storage and slurry injection wells have become so commonplace in the industry that most refer to these processes as “disposal”.

Since Class II Industrial Landfills were created 25 years ago, none containing drilling waste have been remediated and returned to their natural state.

Recover's Technology

Drilling Rig



Cuttings Transport Vehicle

Recover Facility

Recovered OBM

Clean Drill Cuttings

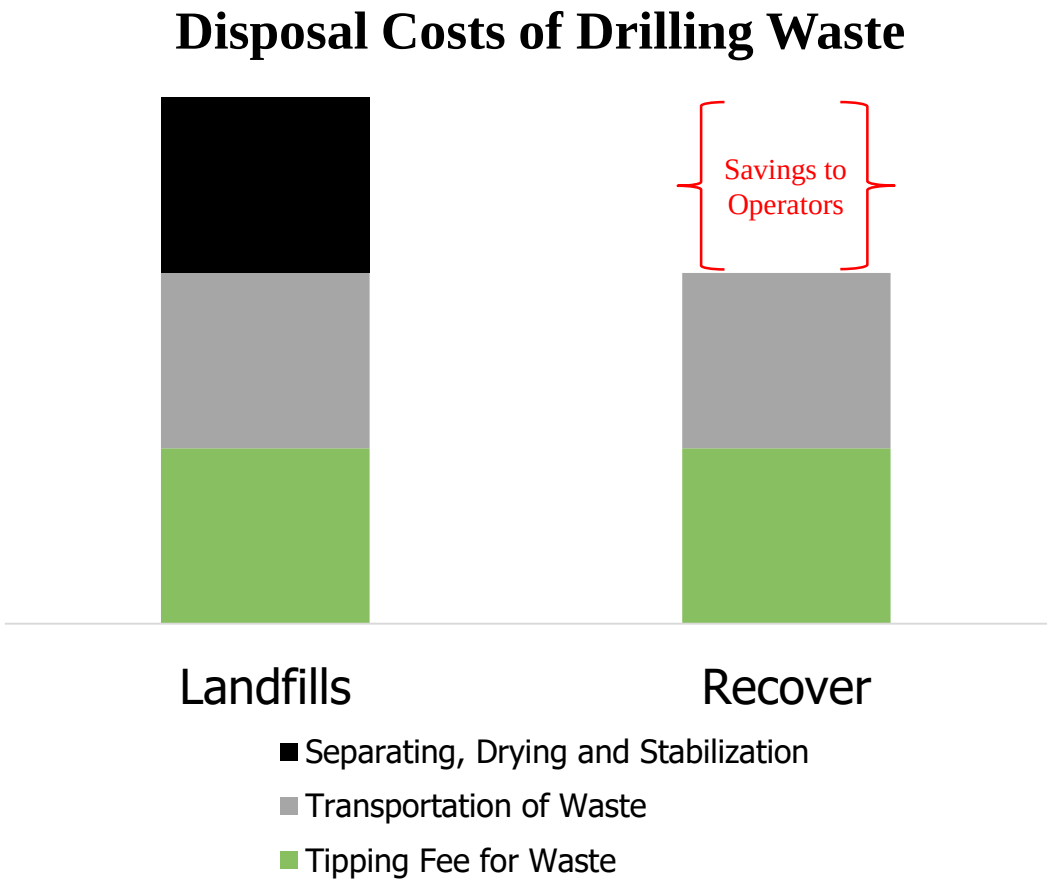
In a world that is becoming increasingly environmentally conscious, Recover's solution provides a significant environmental improvement on existing practices.

Recover's Technology (continued)

- Solvent extraction processes are used to recover food grade canola, corn and soybean oils;
- Environmental laboratories use solvents to extract and measure the hydrocarbon content of contaminated soils.

Recover is bringing a new proprietary patented solvent extraction clean technology to market to recover base oil from drilling waste.

Landfills vs. Recover - Costs to Operators



Recover's technology offers substantial cost savings to operators because it can be applied to the entire oil-based mud drill cuttings waste stream, which eliminates the need for separating and drying the waste or using stabilization materials. Operators are no longer required to pay for additional equipment in order to separate the waste streams for disposal (i.e. landfills, slurry injection, etc.), which reduces equipment rental, transport, disposal and stabilization costs.

- A well will generate between 200 – 600 tons of oil-based mud ("OBM") drill cuttings waste.
- Operators typically pay ~ $75/ton to dry, separate, stabilize, transport and dispose of this waste stream.

ESG Principles

ENVIRONMENTAL

Recover recognizes that environmental concerns are of critical importance to both current and future generations. Our group strives to recycle the same molecule of oil in perpetuity, by actively developing our environmental technology so to achieve environmental protection, prevention and compliance.

SOCIAL

Recover has made a sustainability commitment to our employees, our shareholders and our peers, by providing a comprehensive compensation & benefits package to our employees, economic growth for our shareholders, a positive interaction and accretive service offering to our customers.

GOVERNANCE

Recover, represented by our employees and shareholders, are committed to building a positive legacy corporation by engaging with communities, stakeholders and regulators. Collectively, our group has made this pledge by developing our technological solution to environmental sustainability and social pledge to our peers.

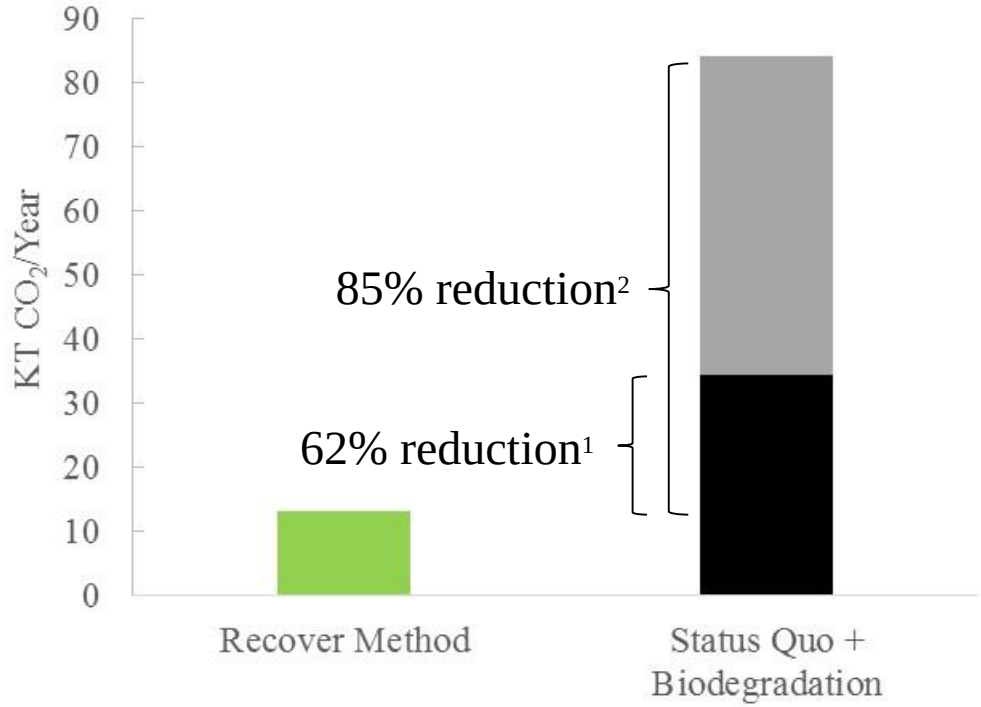
Environmental Benefits

Solids & Liquids Pollution

Status Quo

Recover

Air Pollution



- Landfills have the potential for environmental contamination

1. Recover estimate based on the guidelines set out in the Alberta Offset Emission Factor Handbook 2015
2. Long term GHG reductions would occur beyond the 20 year horizon of the Handbook

- Each project has the potential to reduce 71 KT CO_2/year
- This would represent an 85% reduction relative to the current status quo

HSE

Recover maintains a Certificate of Recognition (“COR”) which is the Canadian energy industry standard for HSE compliance.

- Our Health and Safety Management System (“HSMS”) is audited by a third party every year to ensure we meet the requirements of the COR.
- COR certification means we must maintain compliance of the following elements within our HSMS:
    1. Management Leadership and Organization
    2. Hazard Identification and Assessment
    3. Hazard Control
    4. Worksite Health and Safety Representatives
    5. Qualification, Orientation and Training
    6. Contractor Management
    7. Worksite Inspections
    8. Emergency Response
    9. Incident Investigation
    10. System Administration

Certifying Partner

AASP Alberta Association for Safety Partnerships

HSE (continued)

Recover maintains its safety statistics and stores components of its HSMS through the following web-based suppliers for client evaluation and review

- Online contractor and supplier management platform
- ISN collects, reviews and stores relevant HSE and procurement information and makes it available to prospective clients

COMPLYWORKS

- HSE data storing and evaluation service
- Clients also use this service to communicate updates HSE policies and requirements

Waste Tracking System

Waste Application

- Electronic online application that takes 5 minutes to complete
- Submitted by either the E&P operator or the environmental firm.
- Information that is required would include, location of the well, characterization of the waste stream and contact details
- Following submission, a Waste Application is granted by Recover

Waste arrives at site

- Waste is weighed at the scale.
- A sample of the waste is collected for regulatory process.
- The sample is measured for its constituents (base oil, water, and solids).

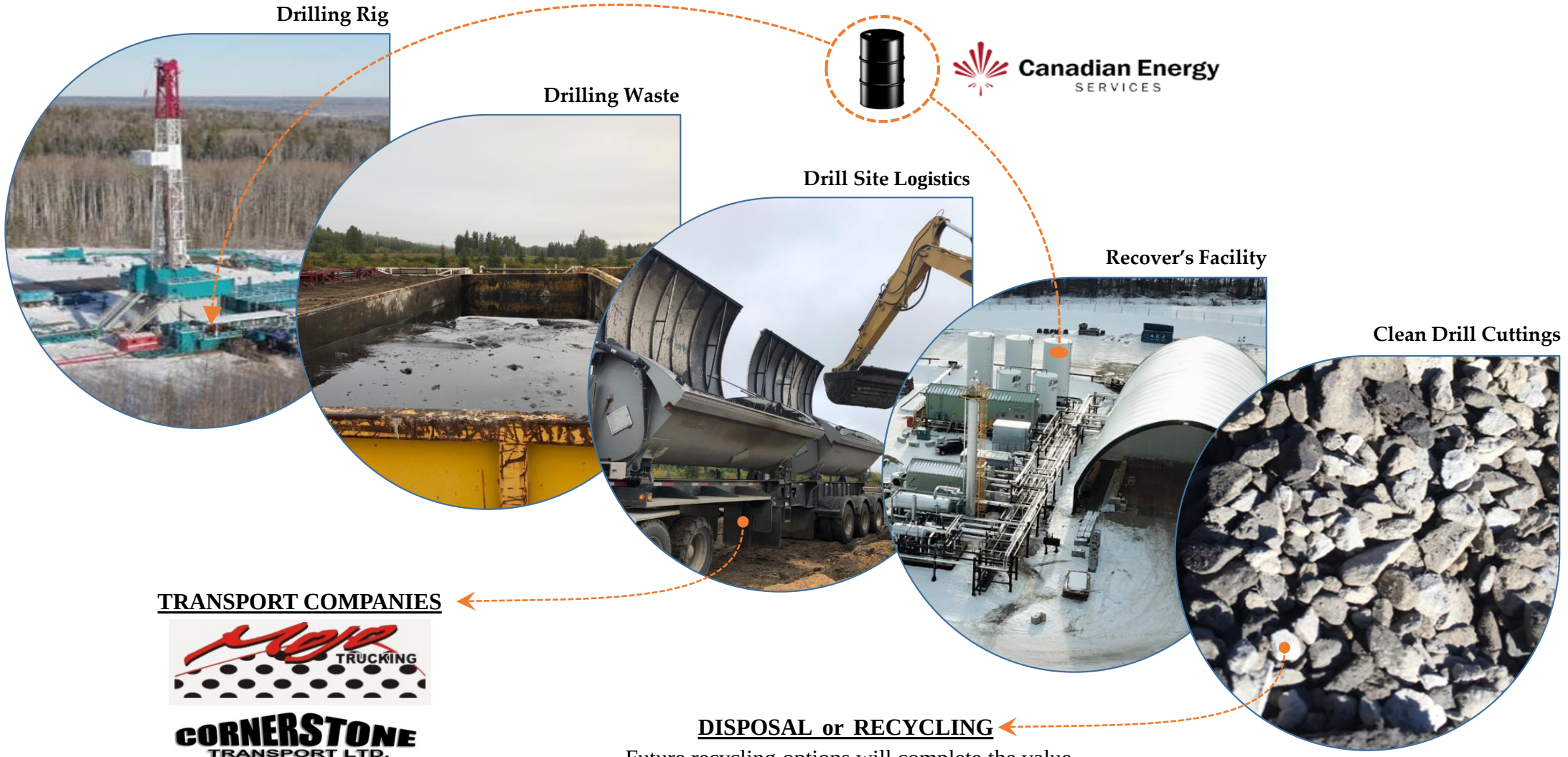
Waste is processed

- Waste is transformed/processed into various constituents (base oil, water, and solids).
- All constituents are re-weighed once they leave the facility and are checked versus what had arrived at the facility

Reporting

- Reports are finalized and submitted to the regulatory body. These include;
  - Waste characterization
  - Constituents volumes that were recovered
- E&P operators are provided with summary reports

Canadian Value Chain Set Up



TRANSPORT COMPANIES

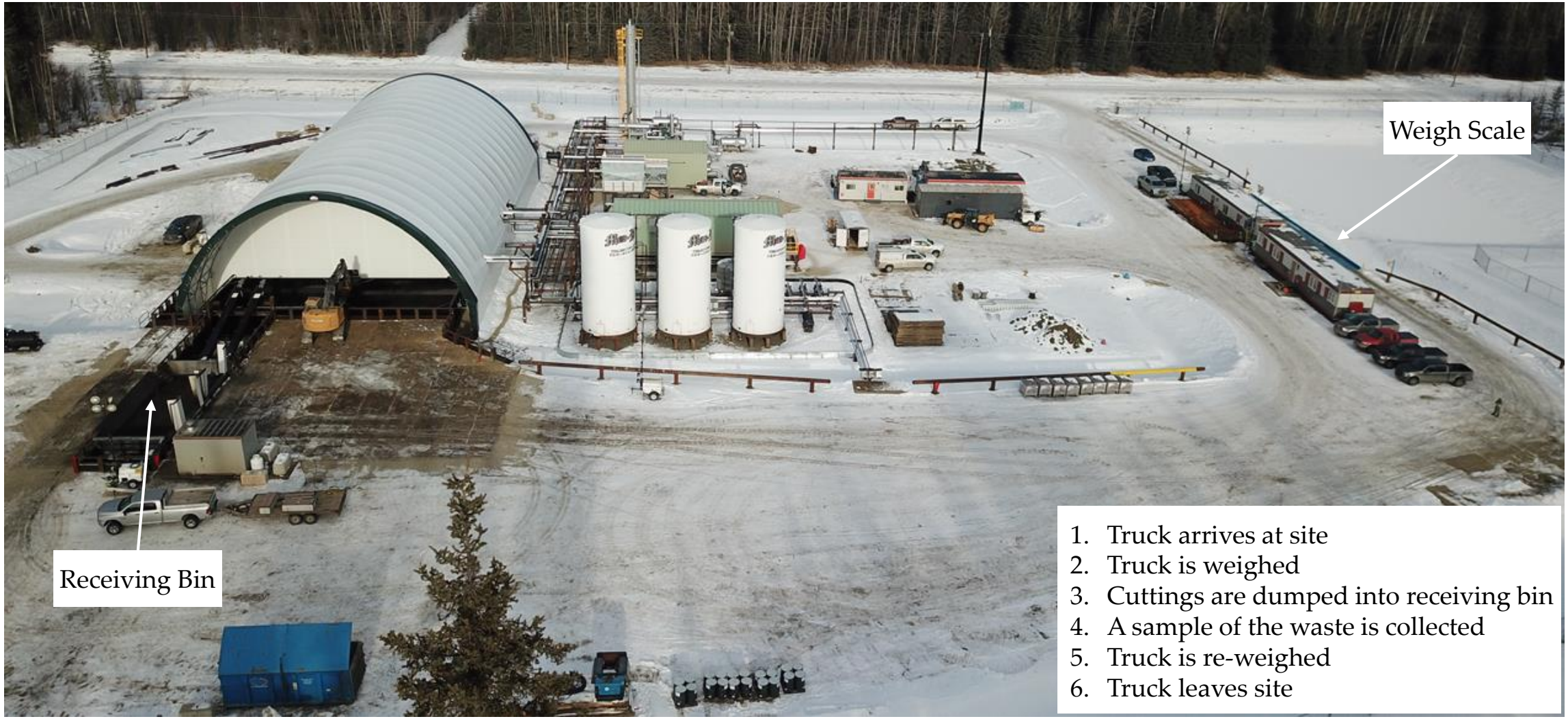
Moyo Trucking

Cornerstone Transport Ltd.

DISPOSAL or RECYCLING

Future recycling options will complete the value chain when Recover can bring it to the market

Logistical Advantages



1. Truck arrives at site
2. Truck is weighed
3. Cuttings are dumped into receiving bin
4. A sample of the waste is collected
5. Truck is re-weighed
6. Truck leaves site

Base Oil Specifications

Factor	Criteria
Benzene	< 0.01%
Toluene	< 0.1%
Ethylbenzene	< 0.1%
Xylene	< 0.1%
1,2,4 Trimethylbenzene	< 0.3%
Kinematic Viscosity (cSt, 40°C)	3 – 8 cSt
Aniline Point (°C)	>58 °C
Flash Point (°C)	≥ 93.3 ^{O}C
Density (kg/m³)	≤ 900 kg/m^3
Pour Point (°C)	≤ -25 ^{O}C
Solids Content	≤ 1.0% by volume

In Canada, Recover partnered with Canadian Energy Services ("CES") to sell the recovered base oil from the plant. This partnership was established for two main reasons

- Ensure market acceptance for the recovered base oil
- Fragmented customer base for this recovered base oil

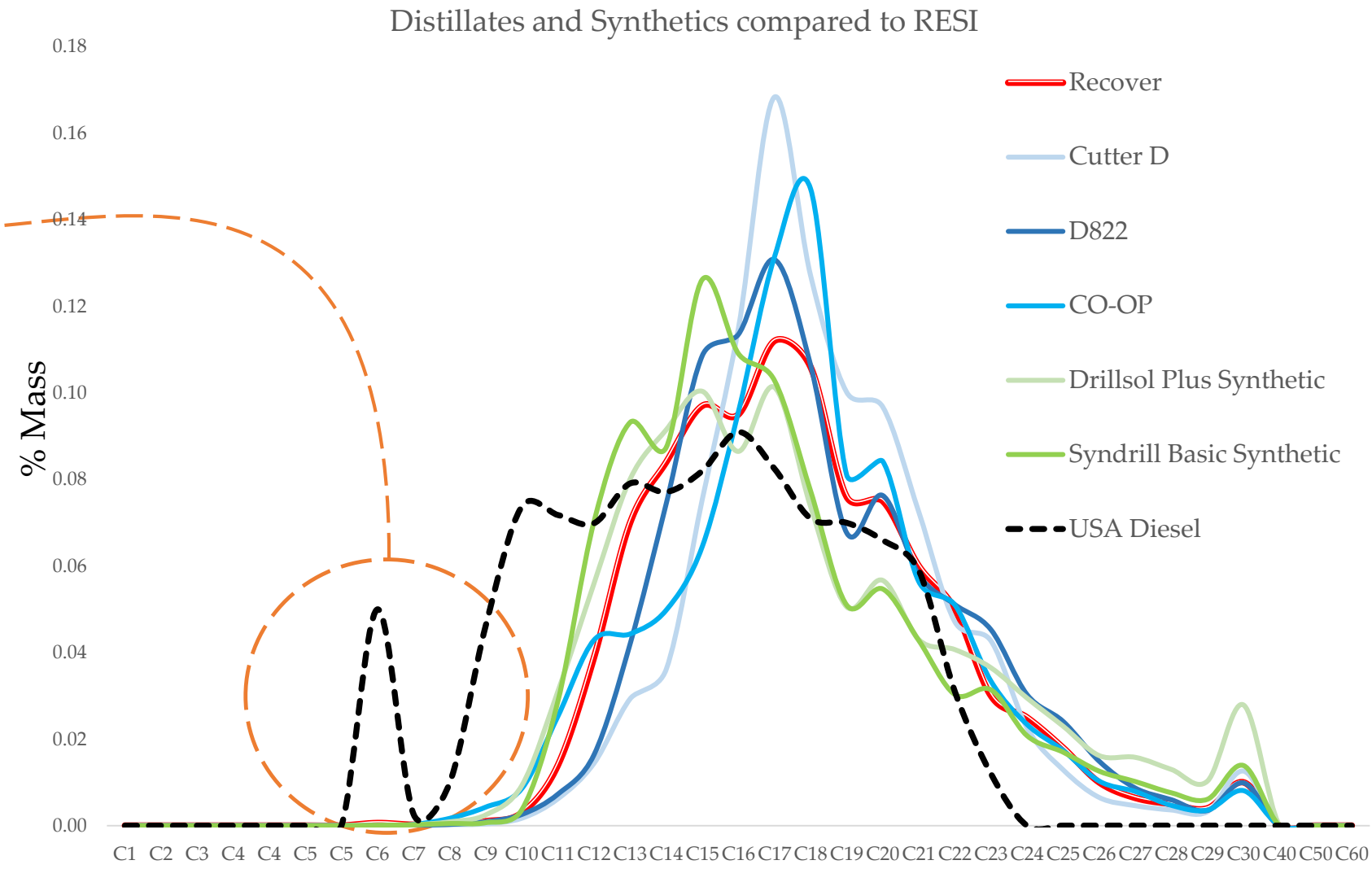
For our expansions, CES, through its AES Drilling Fluids subsidiary, has expressed an interest in expanding this partnership, however, nothing has yet been formalized.

Beyond these fuel characteristics, the base oil may contain traces of drilling fluid additives; emulsifiers, wetting agents or lubricants, which are beneficial in the formulation of new oil mud.

Base Oil Specifications

AROMATICS	
C6H6	Benzene
C7H8	Toluene
C8H10	Ethylbenzene
C8H10	Xylenes
C9H12	1,2,4 Trimethylbenzene

BTEX constituents are know carcinogens and as such, Canadian occupational health and safety regulations mandate that BTEX be substantially removed from all drilling fluids used in Canada.



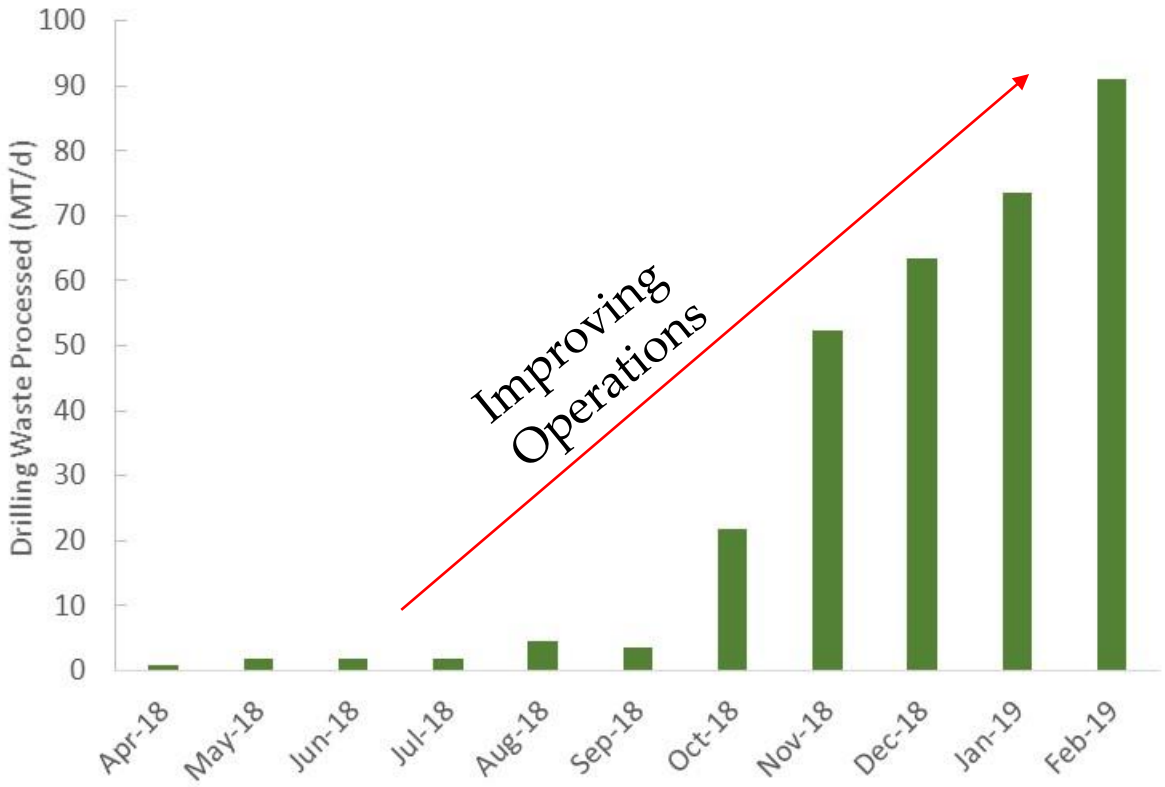
Cleaned Drill Cuttings

Following our process, the drill cuttings are cleaned such that they have less than 1% - 4% oil by weight.

In Canada, we call one of our transportation companies to come to site and we dump the cleaned drill cuttings into trucks. These trucks then transport these drill cuttings to a nearby landfill where they are permanently disposed.

We are currently conducting Research and Development on recycling initiatives for these drill cuttings, but those are likely several years away from commercial deployment. Potential reuses being explored include mineral filler for plastics, slag for cement formulation, road construction/additive for pavement, etc.

Facility Performance – Drilling Waste Processed Per Day

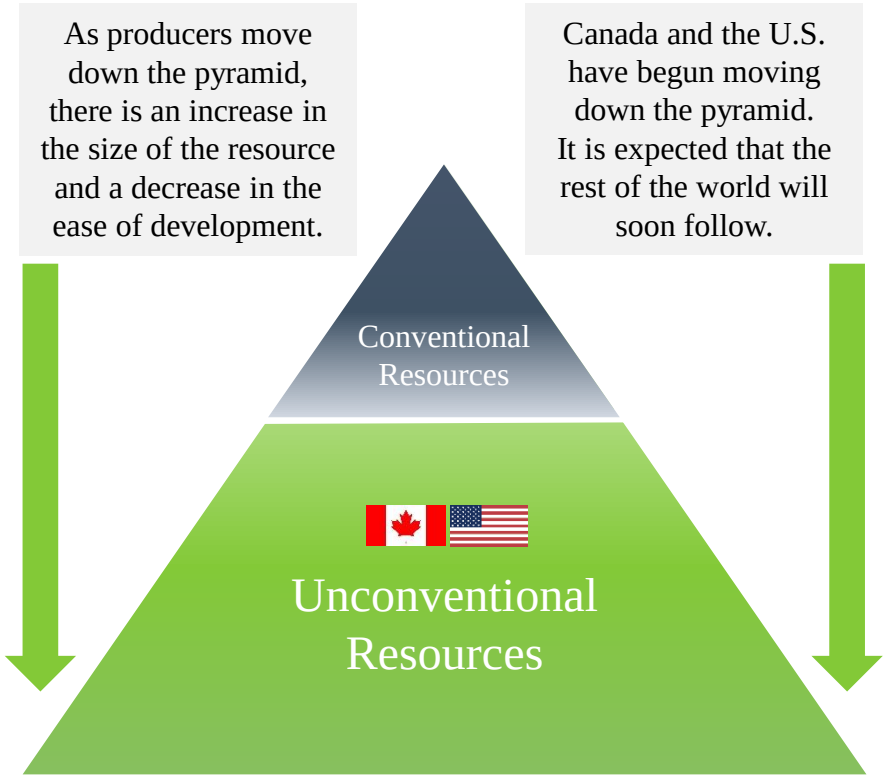


- Over the past nine months, we have processed 10 MMT of drilling waste.
- From a performance perspective, daily drilling waste processing has increased every month in operations despite dealing with:
  - Challenging macro environment
  - Challenging weather conditions
  - Consistently making changes to the facility that would have known or unknown consequences
- In March, the facility was shut down to incorporate some modifications. These modifications are expected to be completed by the end of October, at which point the facility will be reopened for operations.
- From a capacity standpoint, the facility has the potential to process 400 MT/d of drilling waste on a consistent basis.

Increasing Global Reliance on Recover's Solution

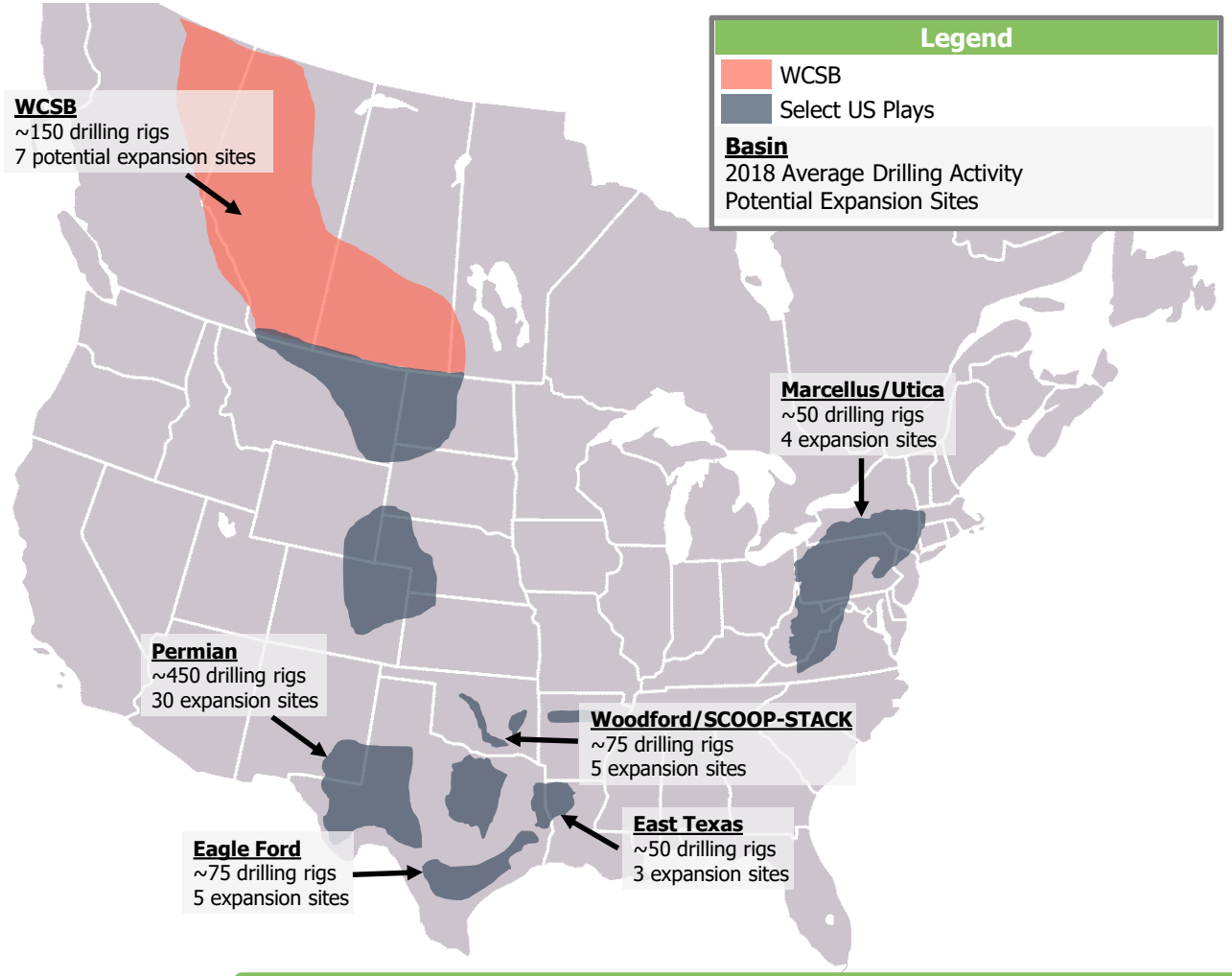
- The choice of drilling fluid depends on the resource play being developed. In North America, development is focusing more and more on larger scale unconventional resource pools.
- The drilling fluids most commonly used for these resources are OBM, as compared to other fluids they are much better at preventing the shales from hydrating, swelling or sloughing into the wellbore.
- As a result, the demand for OBM is expected to increase in North America and around the world as global producers increase their focus on unconventional resources.

Global Resource Pyramid



North American Marketplace

Future Expansion into the Most Active North American Basins



- Started in Canada due to proximity to head office.
- Expansion would be a replication of the Canadian business model.
- Recover's existing producing facility will allow operators to verify the technology prior to committing waste streams to Recover
- Limited refining capacity within proximity to active basins offers strategic advantage to Recover since operators need to transport diesel/base oil a significant distance from the supply to the demand source.
- Recover facilities could be situated at any specific location, thereby eliminating most of the transportation costs associated with supplying base oil back to market.

Recover's technology has broad applications to the largest and most active basins in North America.

Partners, Customers & Suppliers

Financial Partners

Customers and Strategic Suppliers

Summary – Rationale for Providing Waste Stream to Recover

Environ-mental

- The Recover solution provides significant environmental improvements versus the status quo.
- Beyond the 65% - 80% reduction in GHG emissions, there is also reduced solids and liquid pollution that is being disposed of in landfills.

Cost

- The Recover solution provides significant costs savings versus the status quo.
- In Canada, these savings translate up to 25% - 30% on the disposal costs of the well.

Recovered Product

- Recover's base oil may contain traces of drilling fluid additives; emulsifiers, wetting agents or lubricants which are beneficial in the formulation of new oil mud.

Logistical Advantages

- Recover's facility could be built infield thereby reducing the significant cost associated with transporting diesel/base oil to the areas of operation.

Management Team

Stan Ross – *President & CEO*

Serial entrepreneur that has spent his entire career in the energy industry and the last seven years identifying a problem and developing the Recover technology. Previously, was the founder of a successful oilfield rental business.

Shane Kozak – *Vice President of Finance & CFO*

More than 15 years of progressive experience in finance and accounting within start-ups and multi billion dollar organizations in the energy sector. Previously, the Chief Financial Officer for five E&P start-up companies operating in Western Canada and Australia.

Nathan Kunec - *Vice President of Business Development*

More than 15 years of experience in the finance, energy, technology, chemicals and transportation industries, including extensive experience in investment analysis and evaluation.

Paul Sudlow - *Vice President of Engineering*

More than 20 years of experience in oil and gas facilities engineering and project management, including 10 years managing in situ thermal heavy oil projects in Alberta's oil sands.

Mike Biersteker - *Vice President of Regulatory, Research & Development*

More than 15 years of experience in a variety of roles in the environmental and regulatory aspects of the energy industry including roles at Secure Energy Services, Quicksilver Resources Canada Inc. and EnCana Corporation.

Board of Directors

Stan Ross – *President & CEO*

Ric Peterson – *Director*

CEO of Oculus Transport Ltd and a director of Horizon North Logistics Inc., Canyon Services Group, and CanAir Nitrogen. Ric has more than 25 years of experience establishing and growing business principally related to the oilfield service industry.

A.J. (Joe P.) Peskunowicz – *Director*

Founder of Canyon Services Group, one of the largest fraccing companies in Canada. Prior to founding Canyon, Mr. Peskunowicz has had significant management and sales experience with several energy companies across Western Canada.

Dave Pearce – *Director*

Deputy Managing Partner with Azimuth Capital Management.

Jim Nieuwenburg – *Director*

Operating Partner with Azimuth Capital Management.

Stephen Harper – *Director*

Former Prime Minister of Canada and presently Chairman of Harper & Associates.

Recover has built a well rounded management team complemented by directors and advisors with excellent experience and industry contacts.

Summary

Recover is focused on:

- Continuing to operate and optimize the Lodgepole facility;
- Demonstrating commerciality of Recover's technology and EBITDA;
- Confirming the design optimization for the next facilities; and
- Expanding throughout North America by securing expansion sites in known US drilling locations with contracted suppliers to complement the 4 expansion sites already identified in Western Canada.

Recover is:

- A technology company with an extensive portfolio of 26 patents;
- An environmental company (that will displace meaningful conventional oil production and eventually eliminate landfills all together); and
- An organic growth company.

Thank You