

# Spill Prevention Business Model Examples and Results

Lambda Energy Resources

Larry Albrecht – Chief Operations Officer

- Introduction
- Lambda Spill Prevention Model
- Cost of Spills
- Source of Spills
- Cause of Spills
- Proactive Prevention
- Conclusions

# Introduction

- History
- Lambda
- Hilcorp
- Spill Philosophy



# Boardman River



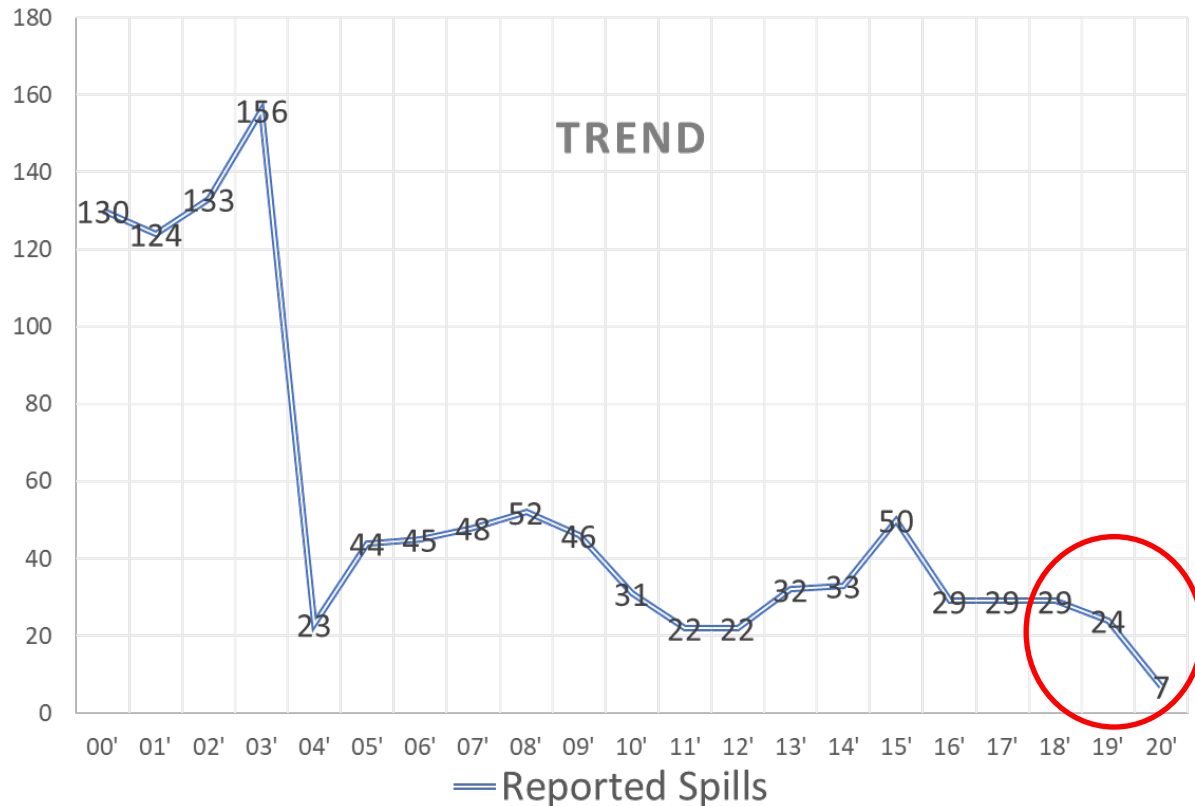
# Boardman River

Boardman River enters Grand  
Traverse Bay



# Lambda Spill Prevention Model

- Change Company culture
- Be Proactive
- Find and clean up quickly
- Close out inherited spills



# Cost of Spills

- Intrinsic Costs
  - Financial Backing
  - Reputation
  - Public Perception
- Actual \$ Costs
  - Liability insurance
  - Bonds
  - Inherited spill clean up
  - New spills found quickly not in surface water or in ground water
    - Few BBLs: Up to \$25,000
    - 5-10 BBLs: Up to \$100,000
    - 10+ BBLs: Up to \$500,000
  - New spills found in surface water or in ground water
    - Millions of dollars and years of clean up/remediation

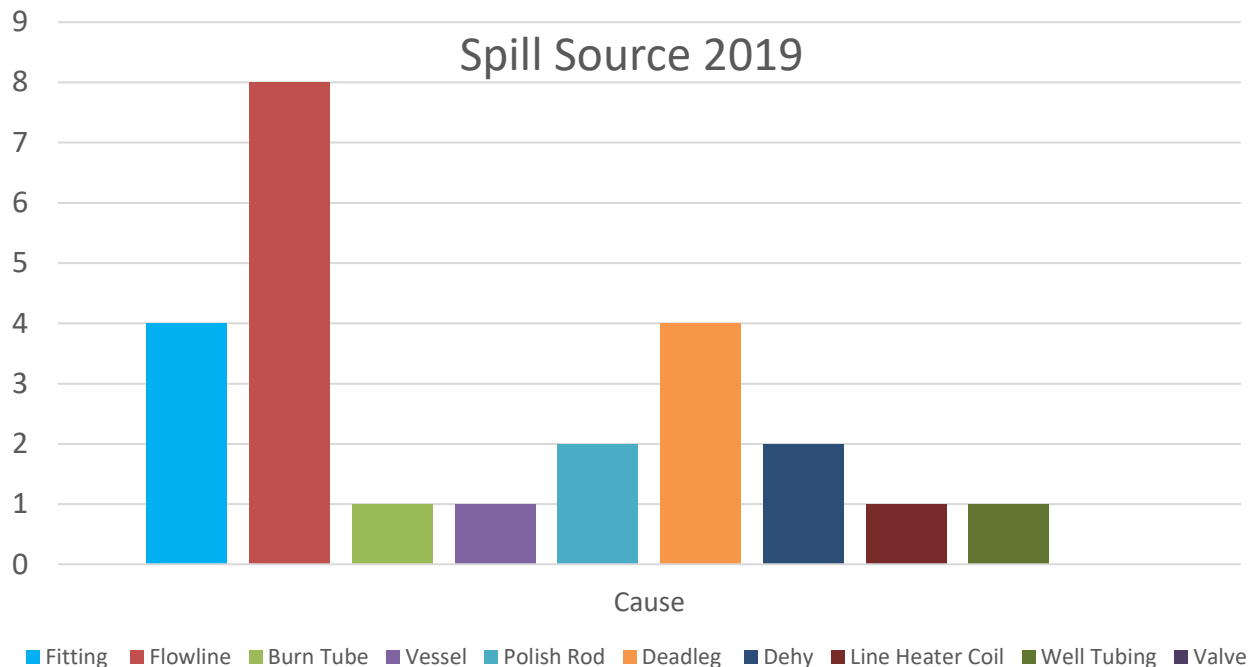
# Cost of Spills





# Sources of Spills

- Well heads and stuffing boxes
- Flowlines
- Production facilities
- Service trucks
- Pipelines
- Gas plants
- Dead legs



# Cause of Spills

- Corrosion
- Mechanical failure
- Explosion or over pressure
- Old age
- Lack of maintenance
- Outside influence



# Proactive Prevention

- Culture
- Diligent Observation
- Identify and Rank
- Spend the Money
- Disarm Dead Legs
- Proper Pressure Testing
- Load Line Containment
- Chemical Treatment
- Grandma Rule



# Proactive Prevention



# Conclusions

- Cheaper to prevent
- Develop a plan
- Do the work

