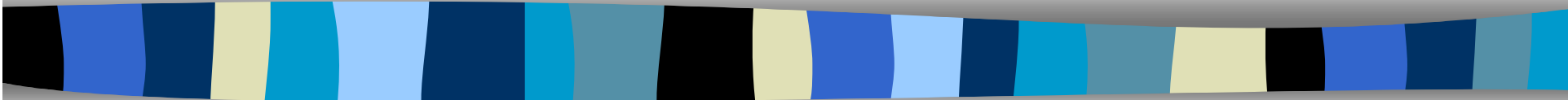




**LOW "ZERO" SULFUR DIESEL**



**FROM OUR OWN BACK YARD**

**ALASKA**





# THE ALASKAN NATURAL GAS TO LIQUIDS COMPANY PROPOSES TO

- BUILD THE FIRST COMMERCIAL SCALE GTL PLANT ON ALASKA'S NORTH SLOPE
  - USING EXISTING PROVEN GTL TECHNOLOGY
  - PARTNERING WITH MOSSGAS AND ALASKAN NATIVES
  - BATCH THE SYN-PRODUCT DOWN THE OIL PIPELINE
  - MARKET THE PRODUCT FROM VALDEZ
  - MARKET 40,000 BBL/D OF DIESEL IN PAD V
  - MARKET 10,000 BBL/D OF NAPHTHA IN FAR EAST



# BENEFITS OF ANGTL PROJECT FOR THE US

- F-T DIESEL ENVIRONMENTALLY SUPERIOR TO EVEN PAD V DIESEL
- DRAMATICALLY REDUCE EMISSIONS FROM DIESEL ENGINES AND HELP CLEAN OUR AIR
- EFFECTS ON EXISTING OIL PRODUCTION
  - MINIMAL IMPACT (IF ANY) ON RECOVERABLE RESERVES
  - MINIMAL IMPACT (IF ANY) ON DAILY PRODUCTION
  - EXTENDS THE OPERATING LIFE OF THE OIL PIPELINE
- REDUCE US DEPENDENCE ON FOREIGN CRUDE OIL
- REDUCE US TRADE DEFICIT



# BENEFITS OF ANGTL PROJECT FOR ALASKA

- LEVEL THE ECONOMIC PLAYING FIELD FOR GTL PLANTS BUILT IN ALASKA VS THIRD WORLD COUNTRIES
- PROVIDE THE INFRASTRUCTURE FOR FUTURE GTL PLANTS TO BE BUILT IN ALASKA
- CAN REDUCE CO2 EMISSIONS FROM EXISTING OPERATIONS
- NO NEW PIPELINE REQUIRED - ENVIRONMENTALLY ATTRACTIVE TO SOME
- GTL's CAN BE BATCHED DOWN THE EXISTING OIL PIPELINE – ENVIRONMENTALLY ATTRACTIVE TO OTHERS
- CAN EXTEND THE OPERATING LIFE OF THE TRANS-ALASKA OIL PIPELINE 30 TO 50 YEARS - ATTRACTIVE TO EVERYONE



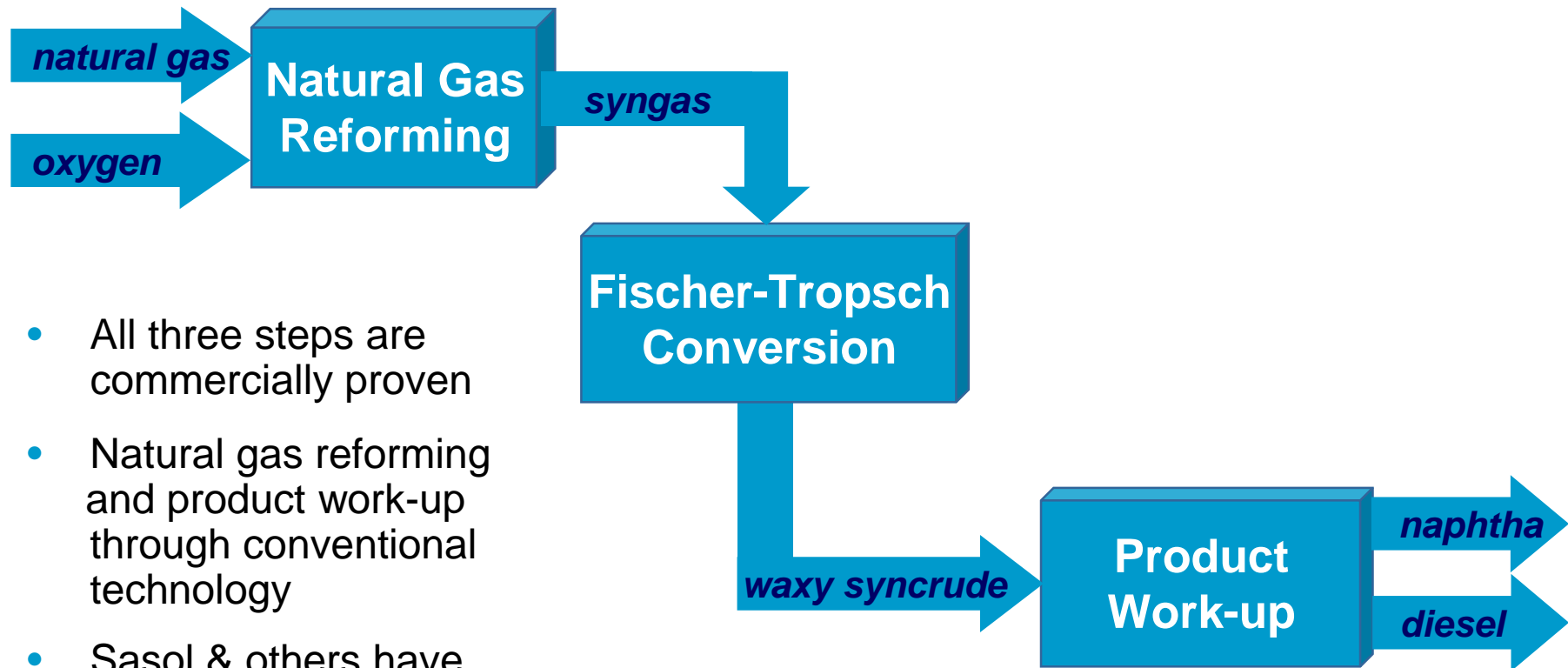
# BENEFITS OF ANGTL PROJECT

- F-T DIESEL ENVIRONMENTALLY SUPERIOR PERIOD !!
- DIESEL HAS < 1 PPM SULFUR AND <.5 % AROMATICS
- CAN BE SIZED TO FIT THE MARKET
- CURRENT SLURRY PHASE DISTILLATE TECHNOLOGY WELL PROVEN. WORLD SCALE GTL PLANTS IN OPERATION, OVER 35 BILLION GALLONS OF DIESEL AND GASOLINE PRODUCED
- EPA HAS APPROVED F-T DIESEL AS A BIO- DEGRADABLE NON TOXIC DRILLING FLUID

~~DIRTY~~ CLEAN DIESEL

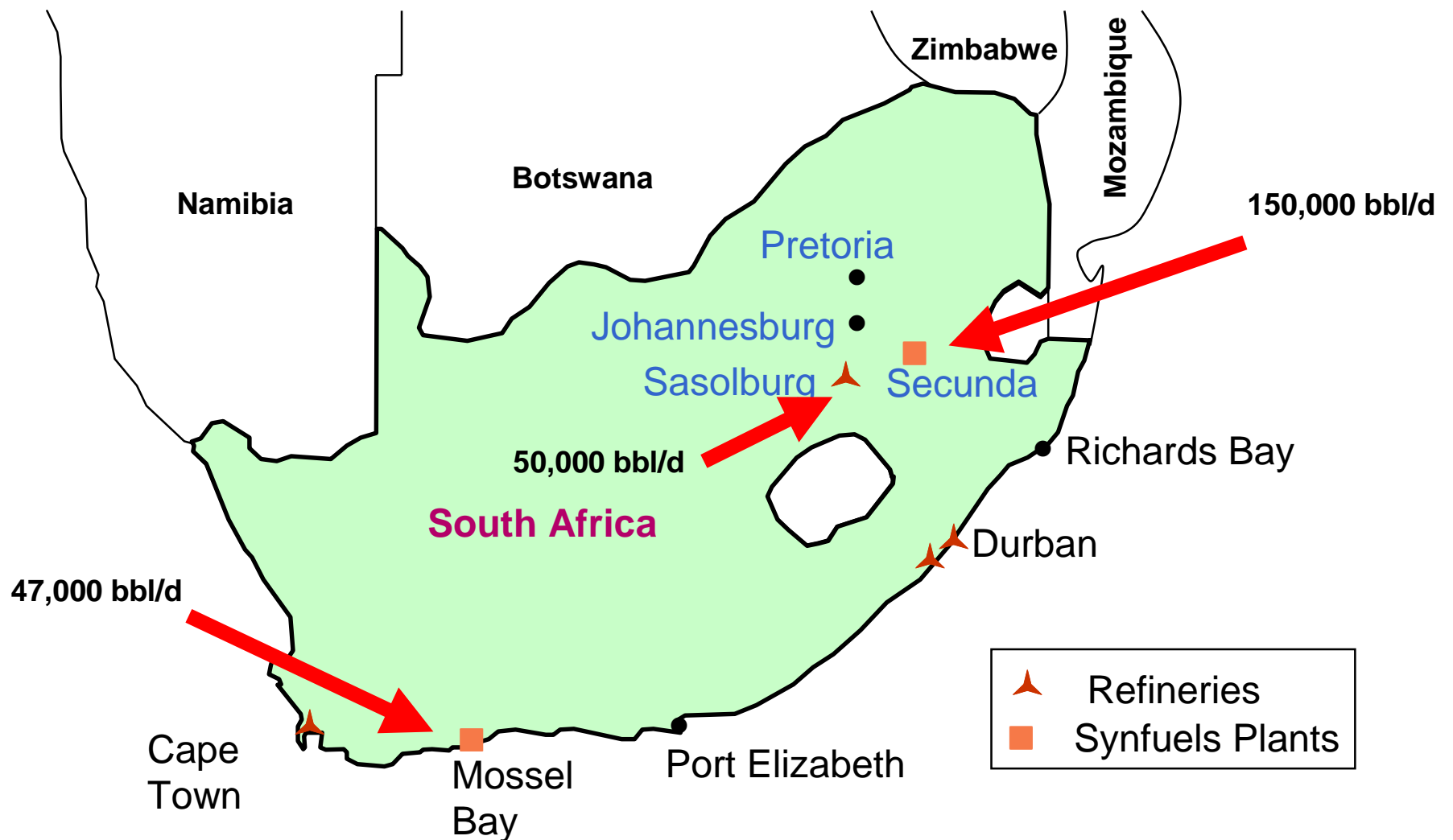
THE PROCESS

# THE SLURRY PHASE DISTILLATE PROCESS



- All three steps are commercially proven
- Natural gas reforming and product work-up through conventional technology
- Sasol & others have reduced costs and improved efficiency by successful integration

# Fuel production in South Africa





# SASOL SECUNDA PLANT RSA



# MOSSGAS PLANT MOSSEL BAY RSA



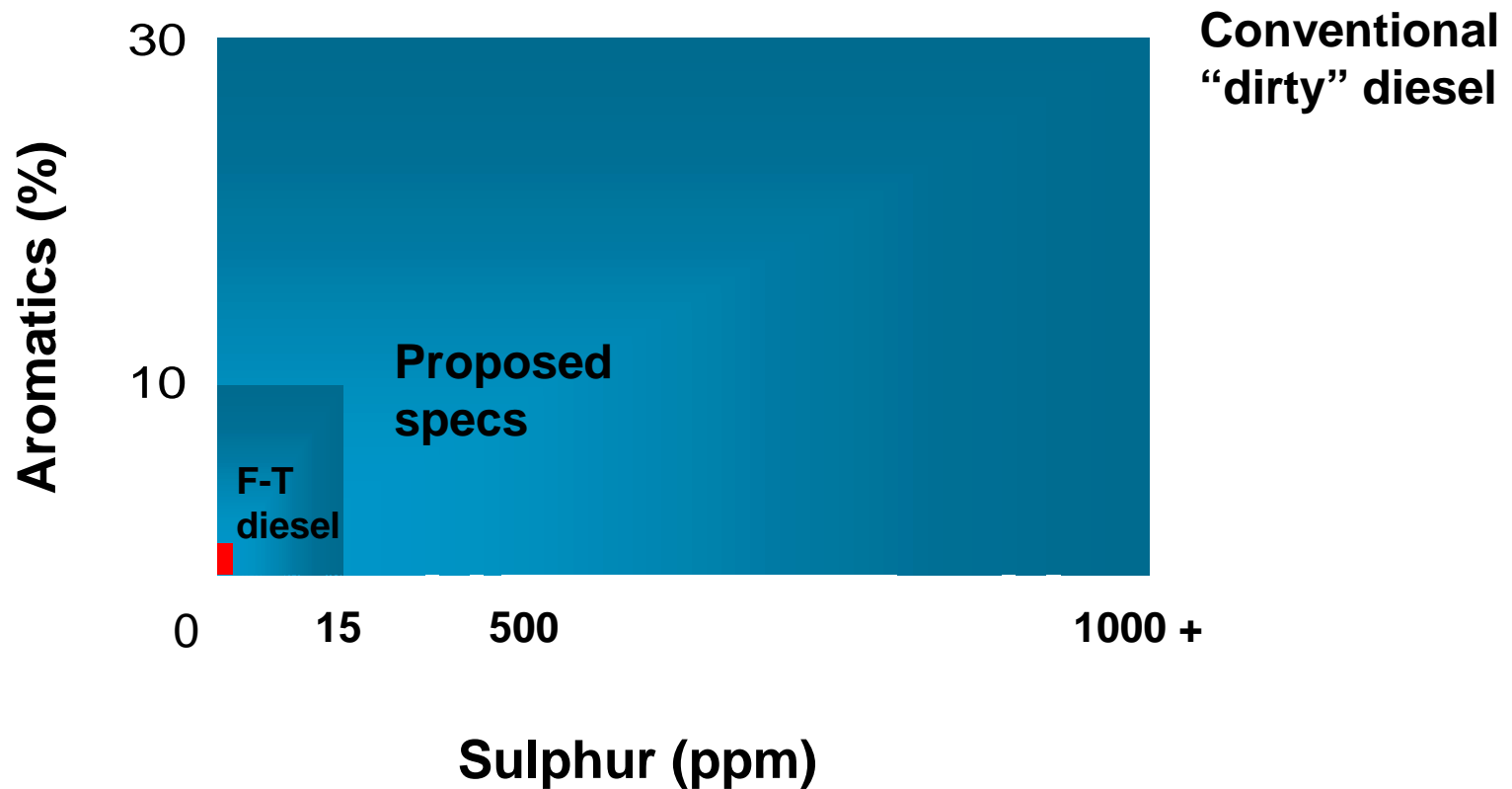


# GTL Produces An Environmental Friendly Automotive Fuel

- GTL Diesel Properties: 

	Mossgas	Rentech	Sasol
– Highly Paraffinic			
– Low Aromatics	< 0.5 vol %	< 0.05 vol %	< 3 vol %
– High Cetane Number	> 52	> 70	> 70
– No Sulphur	< 1 ppm	< 0.01 ppm	< 1 ppm
– Density	~ 48 lbs/ft3	(same for all three)	
- These lead to less toxic & lower exhaust emissions
- F-T GTL diesel meets the tighter specifications proposed by the EPA for future use
  - both on fuel quality and exhaust emissions

# BETTER THAN PROPOSED SPECS



# F-T DIESEL CLEAR AND VIRTUALLY ODORLESS



ANGTL August, 2000 DEER Conference

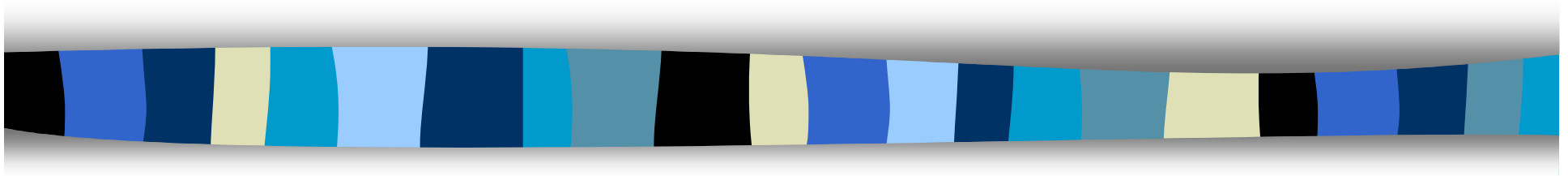


# MOSSGAS – MOSSEL BAY RSA



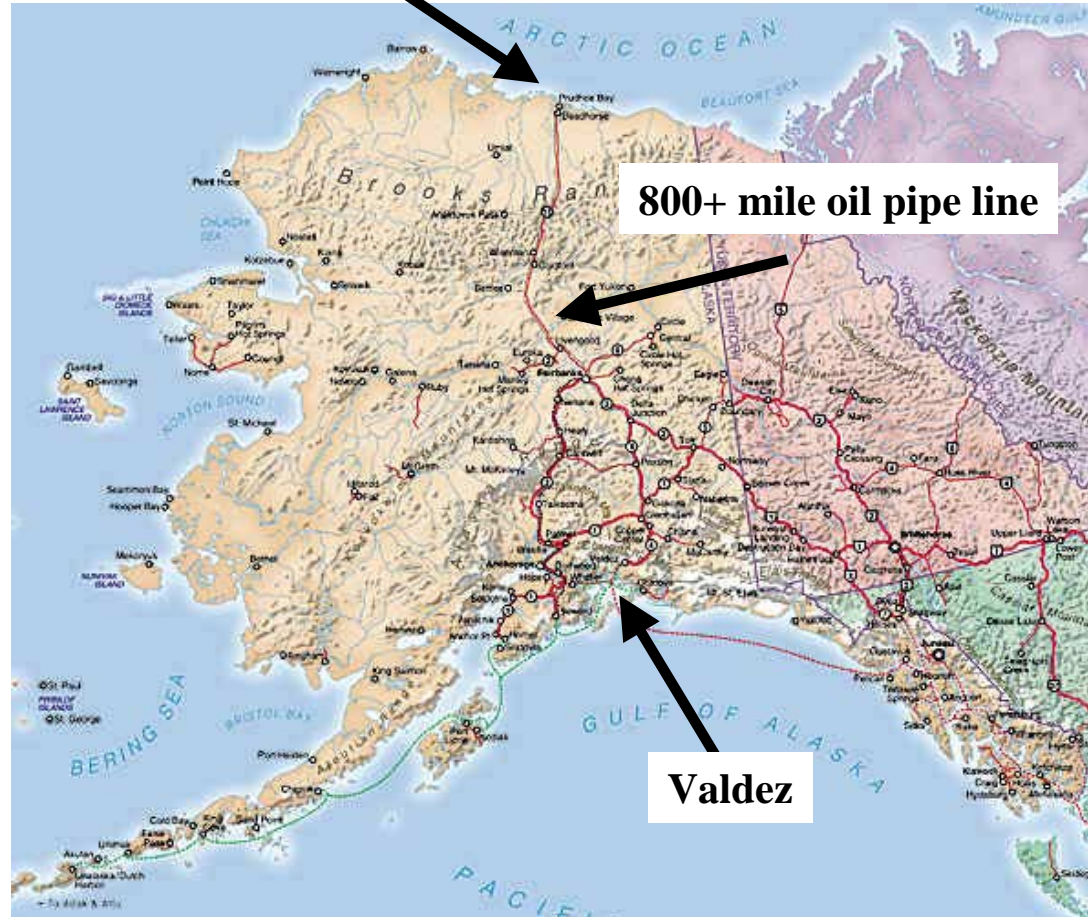
ANGTL August, 2000 DEER Conference

# GTL - DIESEL



**HOW TO MAKE IT  
WORK IN THE US**

**Prudhoe Bay**



**800+ mile oil pipe line**

**Valdez**



# PRUDHOE BAY - WINTER



# PRUDHOE BAY - SUMMER

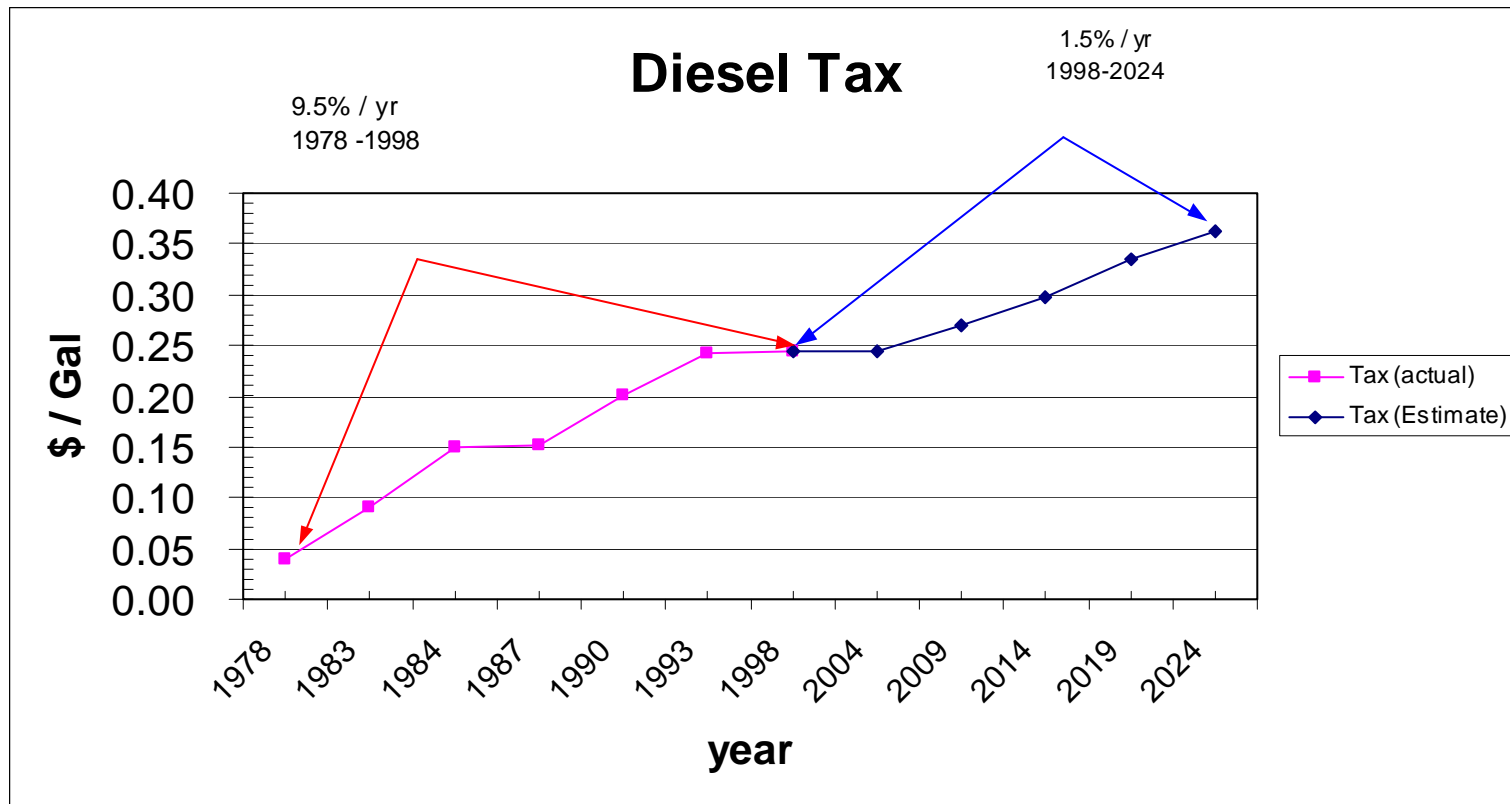




# FEDERAL SUPPORT

- FINANCIAL (CURRENTLY 3 OPTIONS BEING EXPLORED)
  - OBTAIN A FEDERAL “ALTERNATIVE FUEL” DESIGNATION FOR F-T ENVIRONMENTALLY SUPERIOR LOW “ZERO” SULPHUR DIESEL
  - OBTAIN A FEDERAL ENVIRONMENTAL CREDIT FOR DELIVERING A SUPERIOR LOW SULPHUR DIESEL
  - OBTAIN A ONE TIME FEDERAL GRANT FOR THE INFRASTRUCTURE TO SUPPORT A 50,000 BBL/D SPD “PILOT” PLANT AT PRUDHOE BAY AND BATCH PRODUCTS TO VALDEZ

# FEDERAL HIGHWAY TAX ON DIESEL





# ANGTL TIME LINE

- BEGAN FEDERAL PROCESS - MEETINGS WITH WASHINGTON REPRESENTATIVES AND KEY STATE AND FEDERAL OFFICIALS
  - EARLY 1999
- OBTAIN STATE (Alaska & California) SUPPORT
  - 2000
- OBTAIN FEDERAL FINANCIAL SUPPORT
  - LATE 2000 TO MID 2001



# ANGTL TIME LINE CONT.

- BATCHING STUDIES
  - EARLY 2001
- BEGIN ENVIRONMENTAL STUDIES
  - EARLY 2001
- DETAIL ENGINEERING DESIGNS
  - MID TO LATE 2001
- BEGIN CONSTRUCTION
  - LATE 2002
- OPERATION FIRST PLANT
  - MID TO LATE 2006



# ANGTL PROJECT SUMMARY

- OBTAIN FEDERAL SUPPORT TO :
- LEVEL THE ECONOMIC PLAYING FIELD FOR GTL PLANTS BUILT IN ALASKA VS THIRD WORLD COUNTRIES
- PROVIDE THE INFRASTRUCTURE FOR FUTURE GTL PLANTS TO BE BUILT IN ALASKA



# CONCLUSION

- IF YOU WANT ALASKA TO BECOME THE SUPPLIER OF ENVIRONMENTALLY SUPERIOR F-T DIESEL TO THE LOWER 48, THEN SUPPORT THE ANGTL PROPOSAL.
  - TELL YOUR COMPANY TO LOBBY FOR IT IN WASHINGTON DC
  - CALL YOUR CONGRESSMAN AND TELL HIM “HE” NEEDS TO SUPPORT GTL’S FROM ALASKA
  - ASK YOUR CONGRESSMAN TO TELL HIS FELLOW CONGRESSMAN TO SUPPORT F-T DIESEL PRODUCED IN AMERICA
  - TELL YOUR NEIGHBOR YOU HAVE SEEN THE FUTURE AND IT LOOKS A LOT CLEANER
  - F-T DIESEL, THE FUEL OF THE FUTURE, IS AVAILABLE TODAY





# F-T DIESEL TESTING

- TO LEARN MORE ABOUT THE TESTS RUN ON F-T DIESEL AND THE RESULTS CONTACT THE FOLLOWING:
- MOSSGAS – HARRY HILL
  - MOSHCH@mossgas.co.za
- RENTECH - DICK SHEPPARD
  - ros@rentk.com
- SASOL - MARK SCHNELL
  - mark.schnell@sasol.com
- ANGTL – [www.angtl.com](http://www.angtl.com)