EXECUTIVE SUMMARY

REACTIVE ENERGY, INC.

"Clean Synthetic Petroleum Base Products from Waste Plastics"

Summary Statement: Reactive Energy, Inc. (REI) is commercializing proprietary technology that convert low value hydrocarbons into high valued refined synthetic petroleum base products. The company will assist in building and developing facilities and act as licensor/franchisor for third-party implementation of the process. The company has improved the technology and its knowhow for the development of fully automated facilities. REI will build, license, provide technical structure and training for licensed parties with a shared profit buyback arrangement for its produced product.

Technology Overview: The REI process utilizes microwave activated chemistry to molecularly disrupt (gasification) hydrocarbons to be then restructured into other forms of hydrocarbons. The commercial value proposition is the process to convert low value hydrocarbons – such as waste plastics – into high value synthetic petroleum products including slack wax, transportation fuels, lubricants, specialty waxes or adhesives. The introduction of microwave into this conversion process allows for an energy efficient conversion without the high temperature, combustible environment as traditionally associated with other hydrocarbon conversion processes. The microwave reaction is accomplished in a zero oxygen conditions, at near atmospheric pressure, without the introduction of outside catalysts. The capital expenditure requirements are far less than alternative waste conversion processes of equivalent output. Environmentally, the process is easily permitted under state and Federal statutes and regulations because the operating conditions and emissions are benign. Travis Honeycutt was the inventor for the process, which has received national awards for innovation and sustainability.

Commercial Model: The REI apparatus requires a relatively small footprint to construct the smallest module for efficient placement and commercialization. Being modular the units can be easily expanded for increased capacity. This modular concept allows for units to be placed nearby to the best economic market, either near the raw material source, near favorable labor markets, or near fuel logistical facilities. Placement of units is very attractive for rural areas with lower employment costs, lower land values, proximity to multiple agricultural waste generators and collection points, or access to interstate highways or rail spurs.

Raw Material Input: The REI modular unit receives plastics for processing. All types of plastics are suitable for REI processing from milk cartons to computers; there is no need for sorting as is now the case for most recycling models. There is no need to use only clean plastics; no need to discard dirty plastics or plastics with ink printing. The source of plastics can be from recycling enterprises, industrial plastic product manufacturers, landfills, and various types of agricultural production facilities and agricultural product users. Today, in the United State the disposal of waste plastic is not an environmentally efficient activity and about 90% ends up buried in landfills. Typically, the waste plastic disposal transaction requires a "tipping fee" paid by the waste producing entity to the waste processing entity to land fill or recycle the plastic waste. Consequently, this raw material is received at near-zero or even negative costs, net of transportation. The raw material plastic is dumped from trucks directly into a grinding pit and shredded so to be received by the microwave reactor processing unit.

Microwave Reactor Processing: The microwave technology is the unique and, of course, the essential element in the REI process. To be commercially viable the microwave process must be processed in a continuous flow process. The plastic materials must reside in the microwave reactor long enough for efficient gasification, yet be emitted from the reactor without interruption of the continuous flow. Also, the reactor must be cleared of non-hydrocarbon materials collected during the process. Through years of research, testing and trial runs this process has now been perfected as a continuous flow process.

Finished Product Handling: The plastic hydrocarbons are converted to gaseous hydrocarbons emitted from the reactor and must be captured and refined to the intended finished product. The refining, distilling, storage and transportation of the gaseous product from the reactor are similar to any other commercial refinery. The outflow apparatus of the production unit is the piping, refining, and storage equipment typically found at all refineries. Proper containment of by-product emissions complies with federal and state regulatory requirements. For REI facilities located in remote rural areas, power for the entire unit may be generated from the unit's by-product gases. The REI facility can fit into even most

the most rural county industrial sites' power parameters. In less remote areas, commercial third-party energy sources may prove to be the preferred economic option.

Optimum Minimum Processing Size & Its Markets: A REI unit may be as small as one microwave reactor unit which can well produce profitable products such as candle wax and other specialty products. That unit can process 10 tons of plastic waste producing 9 tons of produced product daily and can generate from $0.33 to $4.00 a pound. Calumet is one company that has expressed interest in purchasing all the candle wax REI can produce.

REI has evaluated based on its relationship with Chevron, for the oil companies the optimum size is a unit of eight microwave reactors able to process 80 tons of waste plastic and produce 400 barrels of synthetic wax daily (or equivalent volumes of other target end-products). Conservative financial projections for an eight-unit module require an initial investment of $15 million and even at the crude oil spot price of $30/barrel forecasts an EBITDA of $15 million annually. For the more expensive specialty lubricant end-products having wholesale pricing 125% to 200% of crude spot pricing the EBITDA at a five-year average spot price is projected to range from $18.7 million to $31.1 million once potential commodity buyers are contracted. REI will market the produced products for the licensee and share its profits for the high-value products. According to these forecasts each plant will exceed break-even for crude oil prices exceeding $10.6 per barrel.

Advanced processing: The basic REI petroleum product that is produced is a near-commodity and generally referred to as a synthetic oil base product. However, even the base synthetic produced by REI has many attributes superior to common transportation fuels. There is no sulfur content because plastic does not contain sulfur and there are no toxic nitrous oxides, benzene, toluene, xylene or cyclic hydrocarbons, due to the low temperature operating conditions. Furthermore, the business objective to produce high value hydrocarbons from low value waste products can be enhanced with incremental investment in the modular processing plant. As stated above, the base synthetic product will sell equivalent to the spot price of crude oil. If other products are produced higher values can be received. For example: Ultra-low sulfur diesel sells equivalent to crude plus 15%. Group III lube base oil sells equivalent to crude plus 100%. Commercial petroleum based wax sells equivalent to crude plus 100%. Each enhancement produces commensurate EBITDA returns for the up-graded REI plant. Generally, the large base refineries (i.e., Exxon) will not interrupt their production runs for these relatively smaller market products, which therefore are perfect for the expanded REI modular unit.

Operations to-date: A development production facility was constructed, in Blackville South Carolina. That plant (one microwave reactor unit) produced and sold high value wax at market value. Consequently, that facility was built in a remote area in South Carolina and did not have the needed supply of plastic to expand and has since been disassembled. Fortunately, we have the samples and the analysis produced from the Blackville facility showing its value for markets such as Chevron and Calumet, who visited the plant and sample its produced products.

Expansion Opportunities: The economic opportunities ahead for REI probably do not require extensive economic analysis. Waste plastic is an immense problem not merely for the United States but globally. Over 90% of all plastics (28 million tons) in the US are transferred to landfills annually, which remain undecomposed for centuries. This is neither a regional issue nor a municipal/rural issue; the rate of waste is uniform throughout the United States. This is also an international issue. Additionally, petroleum availability is an immense problem for the United States economy and the growing international economy. This nation is the world's largest importer of crude oil. Even with the exploration discoveries of other forms of energy, it is unlikely that transportation energy will be derived from sources other than hydrocarbon based. The opportunity for geographically diverse placement is virtually unlimited. Rural placement with sufficient waste resources would offer the global community obvious economic benefits.

The Blackville operation demonstrated its technology and value for the markets. REI is generating opportunities for broad scale deployment of its process through licensing of other facilities nationally and worldwide creating strong financial returns.

Reactive Energy. Inc.
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Gainesville, GA 30507
(678) 410-1569

Management Introduction

Reactive Energy, Inc. is a Georgia Corporation. Its management comprised of Dr. Honeycutt, David A. DeRusha, and Glen Smotherman. Travis W. Honeycutt, who passed away on September 13th, 2016, was the inventor of the Microwave Plastic Waste Recycling Process.

Mr. Travis W. Honeycutt had a very successful career as an innovative entrepreneur. He held over forty issued U.S. patents within a wide range of successful commercial applications. Over the past twenty-five years he has incorporated two publicly held companies in the Atlanta area, Isolyser Corporation and Vystar Corporation. Isolyser, now a part of EcoLab, Inc (ECL), commercialized two of Mr. Honeycutt's inventions. Isolyser produced a non-woven material for use in hospital surgical environments that was dissolvable to be environmentally safely disposed. Also, the company produced a solidifying gel to dispose of sharp, contaminated medical devices (for example, hypodermic needles). Vystar (VYTX) has commercialized a non-allergenic natural rubber latex that can be used in over 40,000 latex products. Mr. Honeycutt also founded Reactive Energy Corporation and Climax Global Energy Corporation. Reactive Energy Corporation was formed for the research and development of alternative energy sources and became Climax Global Energy. Climax Global Energy was a spin-off company formed to convert waste plastics into hydrocarbon products, such as diesel fuel. Mr. Honeycutt received a BA in Chemical Engineering from North Carolina State University, a MS from Georgia Tech, and an honorary doctorate from the Kiev University. He pursued doctoral studies at the University of Tennessee's Oak Ridge National Laboratories.

Mr. DeRusha, President, a native of Michigan previously has been a real estate builder/developer in Michigan and northeast Georgia. He also has been active in business development and environmental development projects. He has served as member of several governmental boards including Planning Commission, Zoning Board of Appeals, and EDC Funding Board. David worked with Dr. Honeycutt for over three years to perfect the microwave plastic waste recycling technologies and for implementing it into a fully automated production facilities.

Mr. Smotherman, Financial Director, has previously served as CFO of several companies in the Atlanta area including CryoLife Corporation and Reactive Energy Corporation. Mr. Smotherman received his BS in Economics from the University of Tennessee and MBA from Harvard Business School.

David A. Derusha,
its President/Secretary
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dderusha@bellsouth.net

Glen W. Smotherman, III
its Treasurer
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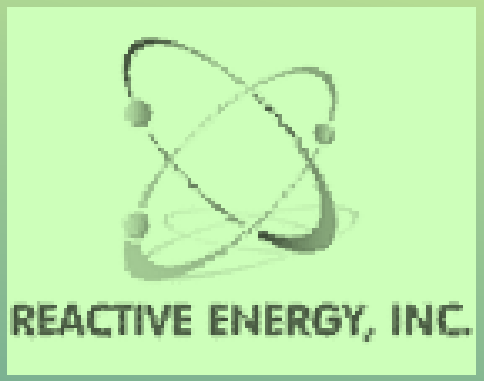


REACTIVE ENERGY, INC.

Clean Petroleum

Base Products

From Plastic Waste

ENVIRONMENTAL/TECHNOLOGY/ MARKET BUSINESS MODEL SPECTRUM

TRASH COMPONENTS

- Bio Mass (Garbage)
- Wood
- Paper
- Glass
- Metals
- Plastic

Landfill

Incinerate

Recycling

Gasification

HIGHEST & BEST USE MARKET END-PRODUCTS

- Incineration
  - Steam Power
- Recycling
  - Paper Mills
  - Smelter
  - Reprocessed Glass
- Gasification
  - Petrochemicals

ENVIRONMENTAL OBJECTIVES

- **28 Million Tons of Plastic landfilled annually in the US.**
- **Few recycling alternatives – None for some types.**
- **Among Plastics, Biomass, Wood, Metals, Glass, the longest deterioration cycle is Plastics.**
- **Strategic approach – convert waste to asset!**

MARKET OBJECTIVES

- Potential Petrochemical Products
  - Economical Value & Market Demand
- Gasification Plant = Petrochemical Plant
  - Traditional Distillation/Refining Techniques
    - Synthetics
  - Fuels
    - Crude – Kerosene – Diesel – Aviation Fuel – Gasoline
    - Heating Oil - Propane
  - Specialty Products
    - Lubricants – Hydraulic Fluids – Grease - Wax

TECHNOLOGICAL OBJECTIVES

- Plastics are a hydrocarbon material
- Petroleum products are a hydrocarbon material
- The objective is to transform the hydrocarbons of plastic to the hydrocarbons of petroleum.
- Options for gasification:
  - Pyrolysis
  - Microwave

GASIFICATION BY PYROLYSIS

- Extremely High Temperatures
- Extremely High Pressure
- Expensive Capital Cost Commitment
- Poor Energy Balance Ratios
- Anaerobic Atmosphere required
- Toxic Byproducts:
  - Toluene, Xylene, Benzene and other cyclic hydrocarbons (heat/pressure)

- Temperatures between 350° and 750° F
- Atmospheric Pressure
- No toxic gas emissions
- No Nitric Oxide emissions
- Anaerobic – within more benign environment
- Low Capital Equipment Commitment –Modular
- All Plastics – Printed, labeled, Soiled

MICROWAVE ACTIVATED GASIFICATION

BASIC PREMISE - NORMAL NON METAL REACTION

BASIC PREMISE – METAL ADDED REACTION

MICROWAVE PROCESSING PLANT

BLACKVILLE, SC PROCESSING FACILITY





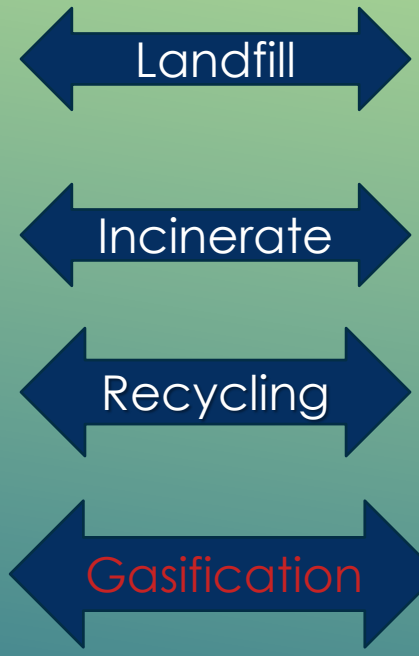



MICROWAVE PROCESS

MUNICIPAL RECYCLING FACILITIES BUSINESS MODEL SPECTRUM

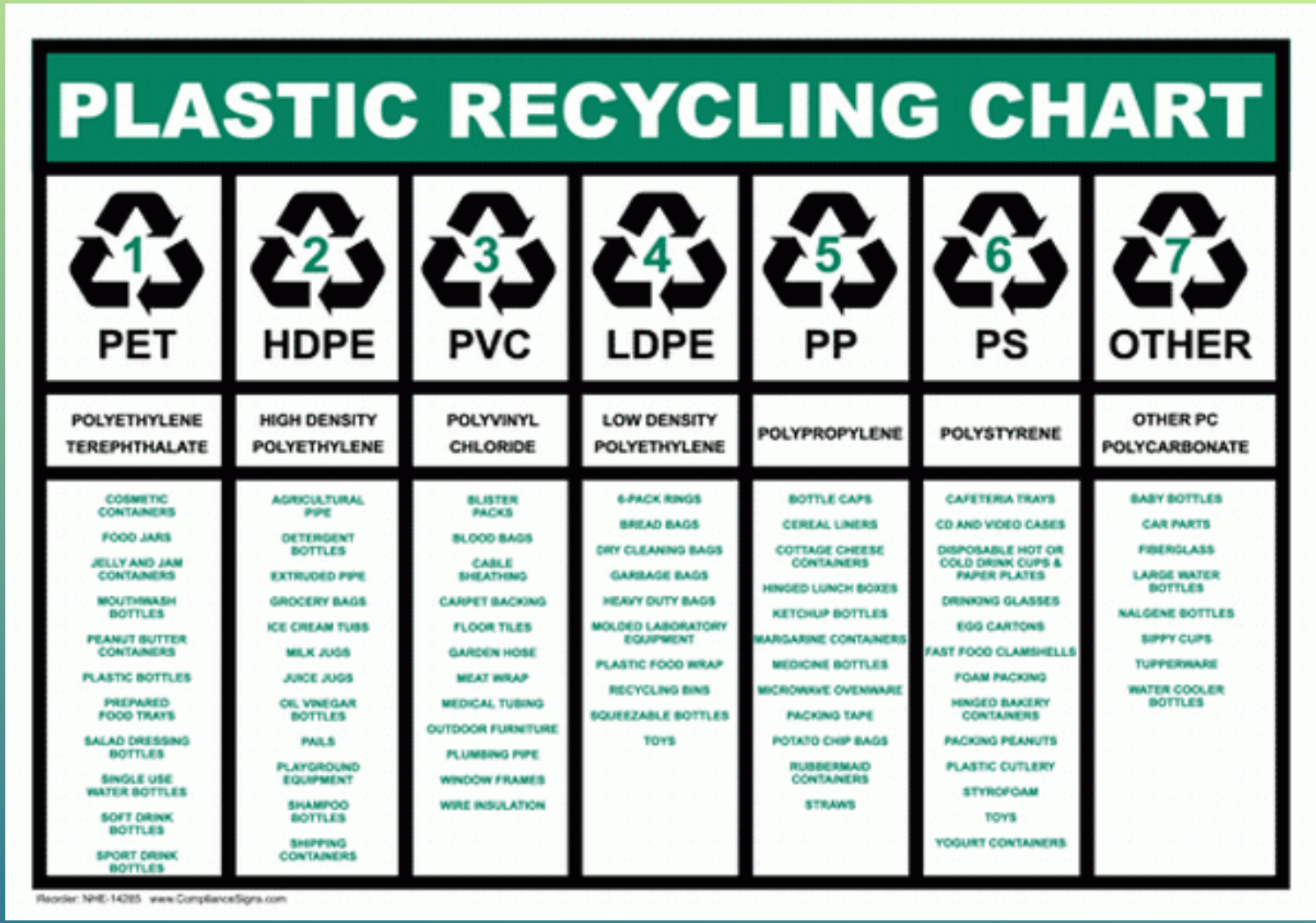
TRASH COMPONENTS

- Bio Mass (Garbage)
- Wood
- Paper
- Glass
- Metals
- Plastic



HIGHEST & BEST USE MARKET END-PRODUCTS

- Incineration
  - Steam Power
- Recycling
  - Paper Mills
  - Smelter
  - Reprocessed Glass
- Gasification
  - Petrochemicals



PROCESSING THE SPECTRUM OF PLASTICS

OTHER COMPARATIVE METRICS

- **Energy Balance – outside power usage**
- **Variable Commercial End Product**
  - **Diesel -- Aviation Fuel -- Lubricants**
- **Environmental Compliance – Permits**
  - **Emissions**
  - **Noise**
  - **Congestion**
- **Labor Requirements - Skills and Wages**

SUMMARY OF MICROWAVE ADVANTAGES

- Less volatile technology
- Environmentally preferable
- Favorable Energy Balance
- Modular Implementation
- Flexible Plastic Waste Feedstock
- Easily Permitted
- Wide range of petroleum-based product

NEXT STEPS

- Provide a Letter of Interest and Begin the Process
- Cost Evaluations – Fabrication and Operating
  - Local considerations for budgets, unit analysis and ROI
    - Labor wage rates and skills
    - Fabrication capabilities
    - Markets
  - One 80-ton unit built in USA estimate $15.0 Million
    - Staging and Number of modular Units
      - Let us know your needs
    - Fixed Cost or Cost plus agreements
    - Components
      - Fabrication Cost – Engineering firm -USA
      - Microwave Unit – Specialized manufacturer
      - Reactor Unit – Custom built
      - Piping, Silos, Tanks, Equipment – local build
      - Shipping
- Competitive Comparisons

REACTIVE ENERGY, INC.

MIRCOWAVE RECYCLING TECHNOLOGY FOR CONVERTING PLASTIC WASTE TO A SYNTHETIC DIESEL FUEL AND A SYNCRUDE PETROLEUM BASE PRODUCT

Produced Product Samples

THESE ARE THE PRODUCED PRODUCTS MADE FROM THE PLASTIC WASTE TO THE PROCESSED RAW MATERIAL AND THE VARIATIONS OF DISTILLATION & HYDRO-TREATMENT TO DIFFERENT STAGES OF MARKETABLE. PRODUCTS.

	ASTM	Whole Fraction	650 (-)	650 - 850	850 - 960	960 (+)		~Naphtha 400 (-)	~Diesel 400 - 650
Yield - LV%		100%	46.8%	27.9%	16.5%	8.5%		21.0%	25.8%
Yield - wt%		100%	45.5%	28.2%	16.9%	9.3%		20.0%	25.5%
API Gravity (60F)	D5002	41.2	46.2	38.9	37.0	26.4			
Sulfur - wppm	D2622-05	28	24	22	24	43			
Nitrogen - wppm	D5762	170	280	120	91	260			
Bromine No.	D1159		48.9	11.6	5.7				
Refractive Index (60C)	D1747		1.4284	1.4400	1.4483				
KV (cst) @ 60C	D445		1.3212	5.857	11.45				
KV (cst) @ 100C	D445		0.8547	2.862	4.958				
Wax Content - wt%	UOP 46		6.2%	39.8%	57.4%				
Pour Pt - C	D97	48	-12	39	60				
Pour Pt - F	D97	118	10.4	102	140				
Cloud Pt - C	D2500		-9						
Cloud Pt - F	D2500		15.8						
Al, Si, C, Ni, Fe, Na, Ca, Zn, P - wppm	IP501	<10	<10	<10	<10	306			
Metals - wppm									
Arsenic		<1.0	<1.0	<1.0	<1.0	<1.0			
Copper		<.50	<.50	<.50	<.50	0.799			
Iron		1.05	0.21	0.156	0.85	93			
Nickel		<.50	<.50	<.50	<.50	1.52			
Vanadium		<.10	<.10	<.10	<.10	<.10			
Acid No. mg KOH/mg	D664	0.50	0.80	0.55	<.10	0.30			

DEPOLYMERIZED WAX ANALYSIS

REACTIVE ENERGY, INC.
PRIVATE LABEL SPECIALIZED WAX

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Private Label Specialized Wax* is a synthetic straight chain, alpha olefin paraffin wax recovered from recycled plastic by Reactive Energy, Inc. proprietary processes. PLSW is considered to be a perfect eco-friendly replacement for petroleum wax used in motor oil, grease, and fuel additives, as well as a myriad of other applications, including chip board and oriented strand board (OSB) manufacturing, textile and leather finishing, and metal lubrication emulsions where odorless, non-toxic wax products are essential. PLSW is light brown to tan in color; free of benzene, toluene, xylene, and other cyclic hydrocarbons; and substantially free of heavy metals.

***"Private Label Specialized Wax" (PLSW) is a working brand name until permanent registrations are submitted and approved.**

Figure A: Depolymerized Wax Analysis

	ASTM	Whole Fraction	650 (-)	650 - 850	850 - 960	960 (+)		~Naphtha 400 (-)	~Diesel 400 - 650
Yield - LV%		100%	46.8%	27.9%	16.5%	8.5%		21.0%	25.8%
Yield - wt%		100%	45.5%	28.2%	16.9%	9.3%		20.0%	25.5%
API Gravity (60F)	D5002	41.2	46.2	38.9	37.0	26.4			
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KV (cst) @ 100C	D445		0.8547	2.862	4.958				
Wax Content - wt%	UOP 46		6.2%	39.8%	57.4%				
Pour Pt - C	D97	48	-12	39	60				
Pour Pt - F	D97	118	10.4	102	140				
Cloud Pt - C	D2500		-9						
Cloud Pt - F	D2500		15.8						
Al, Si, C, Ni, Fe, Na, Ca, Zn, P - wppm	IP501	<10	<10	<10	<10	306			
Metals - wppm									
Arsenic		<1.0	<1.0	<1.0	<1.0	<1.0			
Copper		<.50	<.50	<.50	<.50	0.799			
Iron		1.05	0.21	0.156	0.85	93			
Nickel		<.50	<.50	<.50	<.50	1.52			
Vanadium		<.10	<.10	<.10	<.10	<.10			
Acid No. mg KOH/mg	D664	0.50	0.80	0.55	<.10	0.30			

Figure B: Production Wax Simulated Distribution – July 26, 2013

Instrument 1 ASTM D 7169

Sample name	: REACTIVE ENERGY, INC.		
Acquired on	: 7/26/2013 4:18:21 PM	Vial	: 201
Processed on	: 7/26/2013 5:02:28 PM	Injection	: 1
Sample type	: Lubes	Sample (g)	: 0.00000
Method name	: ASTM D7169A-7890	Solvent (g)	: 0.00000
Operator	: Chemist	ISTD (g)	: 0.00000
Sequence name	: C:\CHEM32\1\SEQUENCE\13JUL26C.S		
Data File	: 13JUL26C\201B0101.D		

General Variables-Hydrocarbon

Used Blank	13JUL25I\201B0101.D
Used BP Calibrate	07CAL05A\201B0101.D
Solvent Start	0.030
Solvent End	0.090
Used Start Elution (min.)	0.000
Used End Elution (min.)	38.010
Total Area	144474 (pA*s)
Used Removal	100.00 (%)

BP Distribution Table – Percent

Recovered mass%	BP °F	Recovered mass%	BP °F	Recovered mass%	BP °F	Recovered mass%	BP °F
IBP	208	26.0	525	520	691	78.0	836
1.0	235	27.0	538	53.0	693	79.0	839
2.0	260	28.0	543	54.0	700	80.0	848
3.0	282	29.0	S45	55.0	710	81.0	854
4.0	293	30.0	551	56.0	713	82.0	860
5.0	329	31.0	565	57.0	715	83.0	869
6.0	337	32.0	570	58.0	724	84.0	873
7.0	347	33.0	572	59.0	731	85.0	882
8.0	368	34.0	578	60.0	734	86.0	887
9.0	376	35.0	589	61.0	737	87.0	896
10.0	381	36.0	596	62.0	747	88.0	903
11.0	398	37.0	598	63.0	7S1	89.0	911
12.0	412	38.0	601	64.0	754	90.0	921
13.0	416	39.0	614	65.0	761	91.0	928
14.0	426	40.0	621	66.0	769	92.0	937
15.0	443	41.0	624	67.0	771	93.0	948
16.0	448	420	628	68.0	776	94.0	960
17.0	452	43.0	639	69.0	785	95.0	973
18.0	459	44.0	646	70.0	788	96.0	990
19.0	475	45.0	648	71.0	792	97.0	1010
20.0	482	46.0	652	720	801	98.0	1036
21.0	485	47.0	663	73.0	805	99.0	1083
22.0	495	48.0	669	74.0	809	FBP	1175
23.0	510	49.0	671	75.0	818		
24.0	514	50.0	677	76.0	822		
25.0	517	51.0	687	77.0	828		

REI PRIVATE LABEL SYNCRUDE WAX





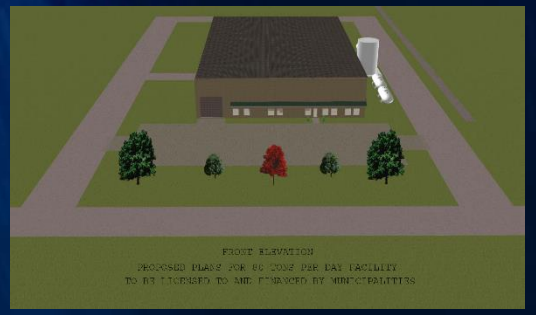


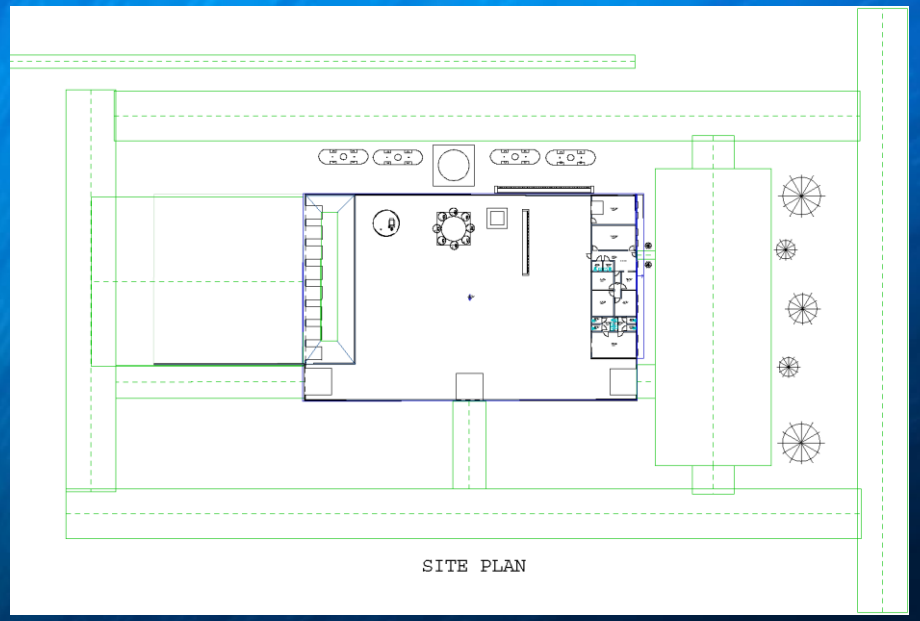


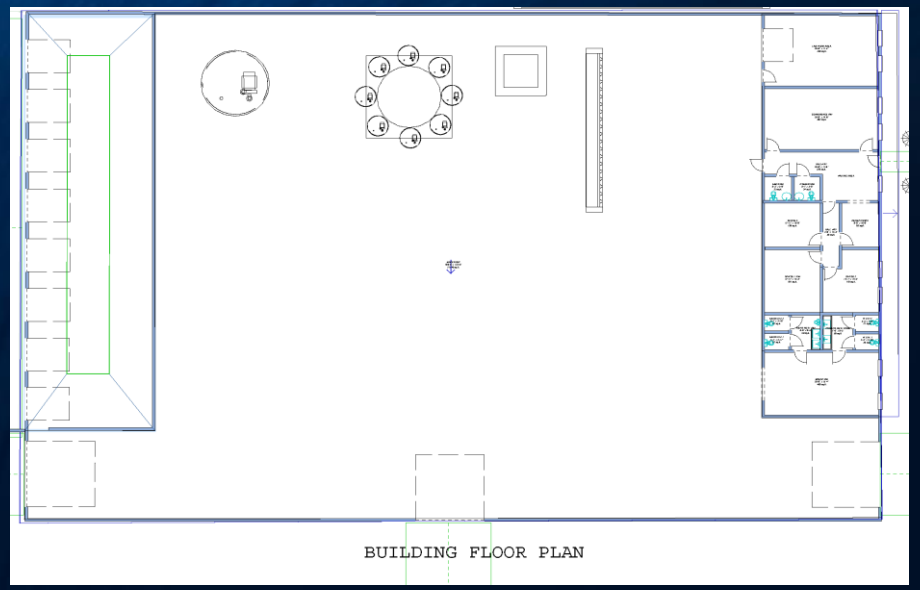


REACTIVE ENERGY, INC

THIS WAS THE PROCESSING PLANT IN BLACKVILLE, SC AND HOW THE PLANT OPERATED TO PRODUCE THE SYNTHETIC DIESEL FUEL AND SYNCRUDE WAX.







80 TON PER DAY FACILITY

THIS IS A 25,000 SQ. FT. FACILITY ON 3 ACRES WITH A FULLY AUTOMATED PLANT, A GRINDER PIT, 8 KETTLE REACTORS, 8 UNLOADING DOCKS TO HANDLE THE 80 TONS OF PLASTIC WASTE DAILY, AND A RAIL SPUR.

Reactive Energy, Inc.
Produced Products

The process of these products does not create CO2 and other toxins. Its produced products do not contain Sulphur and there are no toxic nitrous oxides, benzene, toluene, xylene or cyclic hydrocarbons, as found in a crude oil base petroleum base wax. With many of the large crude oil petroleum wax producing plants closing due to high cost and regulations, our green technology is the next generation of the petroleum wax industry. By microwaving and cracking the plastic to a synthetic petroleum wax there are three major by-products:

SYNTHETIC PETROLEUM WAX

Synthetic wax is used for oil, lubricants, greases, candle wax, pharmaceutical, cosmetics, adhesives, and sealants. This wax requires variations of distillation and sometimes hydro-treated based on its end use.

SYNTHETIC DIESEL/KEROSENE/FUEL ADDITIVES

This high grade synthetic fuel that can be sold as is for better performance and better mileage. It can also be blended to improve standard fuels for better performance and better mileage.

METHANE/SYNGAS

Methane can be used as a fuel for generating and creating electricity by use of a fuel cell or a generator power system that can be used to operate the plant and feed back to the electrical power grid system. It can also be stored in tanks and sold as a syngas in a gaseous form or a liquid form.

Its Double Bond Alfa Olefins are proving to be a major asset to the development of high grade synthetic oils for it stabilizes the viscosity so it does not become thinner when hot, it does not become thicker when cold, and it does not vaporize. This will reduce wear on the engine and result in a longer lasting lubricant, lower maintenance cost, better performance, and better gas mileage.

ChevronTexaco Energy Research & Technology Company
Distillations and Processing Specialities Team
Composite Distillation Summary

FSL # 15773 **Submitted by:** Steve Miller **Bldg/Rm:** 10-1606 **CTN:** 2-2746
Sample Idenity: HIGH WAVE WAX
Column Used: Clean 9" X 2.0" Protruded Packed **Charge Code:** YWEX00900013
AIMS Test Code: 12008

Temperature Degrees F Vapor VLT	AET	POT	Pressure Torr	Reflux Ratio	Cut NO	Volume ml Approx.	Weight g	API Gravities Observed Hyd Rdg	Temp °F	60°F
113	249.4	255	50.000	5:1			Start Overhead			
210	363.0	340	50.000	5:1		2025	Reading			
275	438.2	393	50.000	5:1		3825	Reading			
300	466.8	413	50.000	5:1		4826	Reading			
144	450.0	326	1.000	3:1			Start Overhead			
253	594.1	369	1.000	3:1		6826	Reading			
288	639.2	399	1.000	3:1		8826	Reading			
350	644.1	432	5.000	3:1		10926	Reading			
386	687.6	467	5.000	3:1		13026	Reading			
388	690.0	480	5.000	3:1		15026	Reading			
412	699.7	504	7.300	3:1	1	15131	12256.5	43.2	60.0	43.2
336	700.2	500	1.000				Start Overhead			
416	799.7	550	1.000	0		7100	Reading			
500	939.7	575	0.437	0	2	13900	11263.9			
			End of Run Traps			0	0.0			
			Volume Distilled			29031				
			Column Holdup / Loss			111	103.5	0.0	0.0	20.0
			Bottoms			2617	2444.1	0.0	0.0	20.0 *
			Recovered			31759	26068.0			
			Feed Charged			31759	26068.0	40.9	60.0	40.9

UOPK 12.00

***Btms API Gravity Estimated.**

AIMS Ref # 1577300A **Cost** $0.00 **Data Entry by** Carr, J. W.
Distillation Completed 1/20/16 **Still Position** 16 **SuperX Version** 7.26

FSL # 15773 **Composite Summary Report** **Charge Code: YWEX00900013**

Submitted by: Steve Miller Bldg/Rm: 10-1606 CTN: 2-2746
Column Used: Clean 9" X 2.0" Protruded Packed
Sample Identity: HIGH WAVE WAX

			Distillation Record				Normalized		Actual	
Cut	Vapor Temp °F ST - End	Weight g	Volume Approx.	API 60/60	Density 60°F	Wt Pct	Vol Pct	Wt Pct	Vol Pct
1	249 - 700	12256.5	15131	43.2	0.8100	47.02	47.64	47.02	47.64
2	700 - 940	11263.9	13900			43.21	43.77	43.21	43.77
Col Holdup / Loss		103.5	111	20.0	0.9340	0.40	0.35	0.40	0.35
Btms	940 +	2444.1	2617	20.0	0.9340	9.38	8.24	9.38	8.24
EOR Traps		0.0	0			0.00	0.00	0.00	0.00
Totals		26068.0	31759			100.00	100.00	100.00	100.00
Feed		26068.0	31759	40.9	0.8208			100.00	100.00

***Btms API Gravity Estimated.**

AIMS Ref # 1577300A

UOPK 12.00
Distillation Completed 1/20/16 **Still Position** 16

SIMULATED DISTILLATION REPORT
FOR HIGH BOILING POINT SAMPLES
RUN ON THE 6890 - CHANNEL 43

952-98

SAMPLE G360291 INJECTED ON 5/30/2

NON-SCHEDULED TEST REQUESTED BY MBELSHER

SAMPLE INFO TGQ3102 G360291

PERCENT INTERVALS	WT% TEMP	CUT EP TEMP	CUM DIST WT%
IBP (.1)	414.		
IBP (.5)	485.		
5	611.	300	0.00
10	648.	350	0.00
15	671.	400	0.06
20	694.	450	0.24
25	715.	500	0.69
30	734.	550	1.68
35	753.	600	4.09
40	771.	650	11.87
45	788.	700	20.56
50	804.	750	32.64
55	820.	800	48.83
60	836.	850	63.89
65	852.	900	77.22
70	869.	950	86.36
75	892.	1000	92.49
80	914.	1050	96.32
85	943.	1100	98.59
90	978.	1150	99.79
95	1030.	1200	100.00
99	1113.	1250	100.00
FBP(99.5)	1133.		

LIQUID DISTILLATION:
400-650 = 12.50 WT%
650-1000 = 80.58 WT%
500-650 = 11.80 WT%
ESTIMATED AVE. SP. GR. = 0.886
ESTIMATED RESULTS FOR C6+ :
SPECIFIC GRAVITY = 0.886 API = 28.28 MOLECULAR WT. = 363.

ANALYSIS FILE B43MAY29_35.DAT

Injected On: 05-30-2011 22:03:39 by System **Procedure File:** M43.PRC

Data File: \\146.28.152.23\chrom\ch43\B43MAY29_35DAT-CH43.cdf

Blank File: \\146.28.152.23\chrom\ch43\Z43MAY29EMPTYADAT-CH43.cdf

Calib File: \\146.28.152.23\chrom\CH43\Z43MAY29STDDAT-CH43.CDF

Solvent Exclusions: **[0.415...0.623] Mins**
Quench Region: **No Quenching Correction**
Uncorr Total Sample Area: **41425.00**
Corr Total Sample Area: **41421.00**

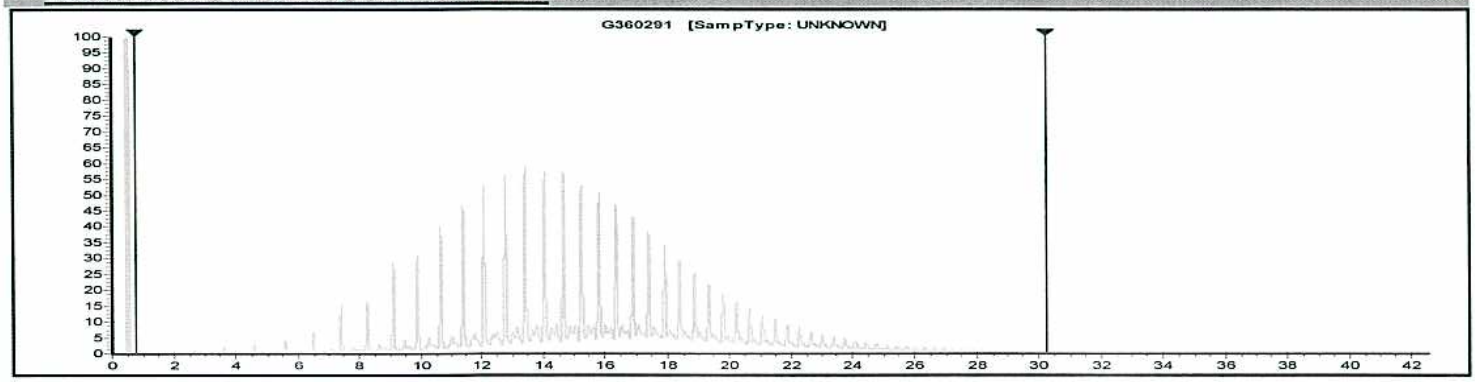
BaseLine Zero: **1.80000**

Start Of Material (mins): **0.783** End Of Material (mins): **30.269**
SOM Thrsh: **(0.06600000%)** EOM Thrsh: **(0.02880000%)**

Sample Weight (g): **1.0000**
Solvent Weight (g): **0.0000**

Material Search Restricted To: **NO RESTRICTION**
Material End Forced To: **36.500**
Warnings:

D2887/D6352 Simulated Distillation Plot



D2887/D6352/D7213 Cut Point Mass Distribution

Cut Point Range	... % Off
Cut #1 ~ [100.00 - 200.00]-[-3.573 - -1.604Min.]	~ 0.0000%
Cut #2 ~ [200.00 - 300.00]-[-1.604 - 0.364Min.]	~ 0.0000%
Cut #3 ~ [300.00 - 400.00]-[0.364 - 2.333Min.]	~ 0.0585%
Cut #4 ~ [400.00 - 500.00]-[2.333 - 5.041Min.]	~ 0.6355%
Cut #5 ~ [500.00 - 600.00]-[5.041 - 8.344Min.]	~ 3.3972%
Cut #6 ~ [600.00 - 700.00]-[8.344 - 12.328Min.]	~ 16.4653%
Cut #7 ~ [700.00 - 800.00]-[12.328 - 15.650Min.]	~ 28.2739%
Cut #8 ~ [800.00 - 900.00]-[15.650 - 19.063Min.]	~ 28.3876%
Cut #9 ~ [900.00 - 1000.00]-[19.063 - 22.674Min.]	~ 15.2700%
Cut #10 ~ [1000.00 - 1100.00]-[22.674 - 26.606Min.]	~ 6.1050%
Cut #11 ~ [1100.00 - 1200.00]-[26.606 - 30.934Min.]	~ 1.4069%
Cut #12 ~ [1200.00 - 1250.00]-[30.934 - 33.113Min.]	~ 0.0000%