



MARCH 22, 2010  
 INITIATING COVERAGE  
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**INTEGRATED ENVIRONMENTAL TECH., LTD (OTC BB: IEVM)**  
 INDUSTRY: ENVIRONMENTAL SERVICES      DISCLOSURES: 1, 3, 4A/D, 5, 10

**RATING: BUY**  
**RISK: HIGH**

CLOSING PRICE 03/19/10	TRAILING P/E (TTM)	SHARES OUT (MILS.)	MARKET CAP (MILS.)	3-5 YEAR REV. GROWTH	PRICE TARGET
\$0.27	NM	83.2	\$22.5	N/A	\$1.36

ANNUAL DATA – DEC YEAR END			
	2009E	2010E	2011E
EPS	\$ (0.03)	\$ 0.05	\$ 0.10
P/E	N/M	5.4	2.7
REVENUE (MIL.)	\$0.3	\$10.6	\$20.1
P/S	6.7	2.1	1.1

EARNINGS					
	Q1	Q2	Q3	Q4	ANNUAL
2011E	N/A	N/A	N/A	N/A	\$ 0.10
2010E	\$ (0.00)	\$ 0.01	\$ 0.02	\$ 0.02	\$ 0.05
2009E	\$ (0.01)	\$ (0.01)	\$ (0.01)	\$ (0.01)	\$ (0.03)

**INVESTMENT SYNOPSIS**

We’ve been monitoring Integrated Environmental Technologies, Ltd. (OTCBB: IEVM or IET as an abbreviation for their name) for more than six months and were ecstatic to be asked to help with their awareness program when the “time was right.” Given the recent scare of a possible Swine Flu pandemic outbreak, which had every possibility of being as devastating as the spate in 1917, as well as the constant threat of MRSA, a Company offering a new technology that produced a continuous, precisely titrated, and effective biocide, all-purpose disinfectant and cleaner had to be a big “medical winner” for the new decade. But, we didn’t have any clue as to the potential size of importance the other markets would have on IET until the most recent joint announcement with Benchmark was released regarding their work in deephole oil and gas wells.

As part of our due diligence process, we traveled to Little River, South Carolina to visit the Company’s corporate offices and manufacturing facilities and found just about exactly what we were hoping for... a very tightly run operation just taking-off. In sum, it is a “tick-sized” business facing several monster-sized opportunities that would be bursting at its building’s seams not for southern loyalty, hard work, duty and pride.

The order from Benchmark underscores the opportunity in the oil/gas patch. It not only provides near-term EcaFlo® System production and revenues; but the follow-on royalty stream should also provide real operating stability for IET’s financials. Besides additional gas-patch order activity and royalty streams, investors should be forewarned that other industry opportunities outside this first arena appear to be forthcoming on the shirrtails of this exciting news. Do expect more hospital, health facility and health department orders to play a greater role in IEVM’s operating statement results: Word of their technology and understanding of the benefits will undoubtedly advance at a more measured pace through the bureaucracies of governments and agencies. But when it does, it will be incorporated into all manner of defense, civil and government organizations. Already IET is making inroads into these customers.

Even at this early stage of its development, we see IET as an exciting investment opportunity. We have decided to add IEVM to our “BUY” recommendation list because the Company has shifted this month to what appears to be a profitable operating status. Growth is coming at almost a staggering pace. 2010 results should be impressive compared to 2009.

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We believe that IEVM shares should appreciate to \$1.35 to \$1.50 over the next 12-month period. This is based on our earnings model that sales for the Company will expand from \$343 thousand last year to nearly \$10.5 million in 2010 and \$20.0 million for 2011. For our projection of earnings, we believe a combination of equipment sales and royalties on their EcaFlo® solutions should generate EPS profit of \$0.05 per share (not using a tax adjusted basis due to the Company's NOL) for 2010. This compares to a loss of (\$0.03) for 2009. For 2011, we have an EPS estimate of \$0.10 (with a 23% tax rate). Furthermore based on limited comparable work (given the lack of good candidates), we derived our target of \$1.40.

**INTRODUCTORY PREAMBLE: MY FIRST GASP FACING A CHEMICAL WEAPON**

As a kid growing up in Northeast Portland, one of the things you did in our neighborhood to stay out of trouble (or at least our parents thought it kept us sufficiently occupied and out of trouble, heh! heh!) was to join the local tennis club. It had wonderful indoor facilities, a rundown clubhouse and a pool that probably had been installed after the Korean War.

Well, one sunny July afternoon, after a set of tennis, a bunch of us rambunctious 13-year-olds were in the pool swimming. All of a sudden, we felt our eyes burning a little more than normal, and we were hacking a little and our throats were tightened up a bit. Then the lifeguard was blowing her whistle as hard as she could. We played on, splashing and dunking one another. The mothers around us grabbed their kids and ran for the gates. The girls all started crying and jumped out of the pool and headed for the streets. We boys dove underwater thinking nothing of it until some fireman pounced down amongst us and grabbed Billy and Jimmy by the swim trunks making an impression on the rest of us to "Get Out Of The Pool!! NOW!!!"

Finally, we figured out that the chlorine tank for the pool had sprung a leak. It was contaminating the entire neighborhood with the poisonous gas, sending those of us at the pool home, making it impossible for those who lived in the neighborhood to stay in their homes, and worst of all, shutting the pool for the rest of the afternoon....Darn!

We boys all had to walk home and find something else "safe" to do for the afternoon... Make acetylene gas for our homemade carbide cannon, hydrogen for balloons and bombs from lye (potassium hydroxide) and aluminum foil, or fire-off the firecracker cannon. You know, we had to stay out of the way of trouble. There was no ride in the ambulance, no hospital stay, no post trauma counseling, not even a whiff of gas from an oxygen tank. Indeed, we had to walk home from the club by ourselves and if I remember correctly, we attempted to look cool by smoking cigarettes and playing with our switchblades, which we undoubtedly succeeded in cutting ourselves. (Thank God, my Blessed Mother passed-on so today she can't read this ditty and die finding-out what her favorite son was doing! Oh! I should have become the doctor.)

The point is that the chlorine gas that almost effectively exterminated us in the pool is a precursor to one of the greatest cleansing agents and chemical biocides known to man. It is for this very reason that swimming pools use it to kill bacteria and viruses and to help cleanse the pool environment (Ever think about just how awful pool water can become?!)

But as man has developed different needs for cleaning, sanitizing and sterilization, various chemicals and agents have been developed and employed overtime. For example, with the discovery of real disinfectants and germ warfare, it was Joseph Lister at Glasgow Royal Infirmary (early 1860's) who first used carbolic acid to disinfect wounds and then sprayed the entire surgical site with the solution thus disinfecting the opening during surgical procedures. (Unfortunately the procedure was not used in the field operations of the U.S. Civil War to effectively reduce the casualty numbers) This was the first real use of "antiseptic procedures" to help reduce the causes of infection and blood poisoning to a surgery patient. (It is also the root origins of the terms Listerine and Listeria.)

Since the 1860's, different chemical biocides have been introduced to selectively kill microorganisms in medicine, agriculture, animal husbandry, forestry, and industry. Further, biocides can prevent the fouling and clogging of water and gas pipelines, as well as cooling systems, by preventing the buildup of microorganisms in fluid re-circulating systems. In addition, certain germs have built-up an immunity to these agents, so new biocides are used that may be more effective but also more harsh. Each type of agent used in the process of killing the microorganisms exhibits specific, generally undesirable toxic effects and side effects. In response to these considerable side-effects, a new industry has emerged centered on producing environmentally safe biocides, disinfectants and sanitizing agents.

At present, several broad classes of caustic and toxic substances are commonly used to kill microorganisms in a range of settings:

**Sodium hypochlorite (NaClO) gas, liquid, granules:** Here is our familiar chlorine bleach derivative that is commonly used to treat public drinking water and swimming pools, as well as a common, household bleach cleaner. The infamous chlorine gas is most often used to synthesize other chemicals, make bleaches and other disinfectants and in food service and food preparation cleaning and clean-up processes. It is also now rarely used as a cleanser of foods prior to packaging as well as being used in drilling and fluid transport applications where fouling and clogging can result from microorganism build-up.

Adverse effects include the fact that some of the Chlorine derivatives are caustic or very corrosive. As I experienced, chlorine gas is incredibly irritating and corrosive to the respiratory tract, eyes, and skin and is a strong oxidizer that leaves a residue that must be rinsed: >0.5% concentrations can be toxic to animals and humans. Chlorine gas, chloramines and chlorine dioxide are strong respiratory irritants that react with various organic compounds to form toxic and carcinogenic byproducts like chloroform and other trihalomethane compounds generally considered hazardous. One last point. It is the strong "oxidizing" effect that makes the chlorine compounds incredibly valuable biocides. The molecules literally kill microorganisms by scrubbing through the cell walls of the germs and destroying the inner enzymes, structures and processes of the offending germs.

**Formaldehyde (CH<sub>2</sub>O)<sub>3</sub> and gluteraldehyde:** Commonly used in hospitals, health facilities and other sterile settings to disinfect and sterilize instruments and surfaces.

Formaldehyde's adverse effects are numerous particularly since it can be toxic, allergenic, and carcinogenic<sup>1</sup>. The chemical can irritate the eyes and mucous membranes, which may result in watery eyes at concentrations above 0.1 ppm. Inhalation at these concentrations can cause headaches, difficulty breathing, burning in the throat in addition to triggering or aggravating asthma symptoms. In general, it's nasty stuff.

**Quaternary ammonium compounds:** Also commonly used in hospitals, food and food service and industrial applications as a disinfectant and sanitizing agent.

Adverse effects: Quaternary ammonium ions can cause skin and respiratory irritation in diluted solutions. Concentrated solutions are corrosive and can burn the skin or mucus membranes. It can cause toxic effects due to curare-like properties by all routes of exposure including inhalation, ingestion, and dermal absorption.

There are other categories of biocide used in less pervasive applications, but for the purpose of this discussion this list will suffice.

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<sup>1</sup> *Formaldehyde, 2-Butoxyethanol and 1-tert-Butoxypropan-2-ol*, IARC Monographs on the Evaluation of Carcinogenic Risks to Humans 88, Lyon, France: International Agency for Research on Cancer, 2006, pp. 39–325,

**BACKGROUND CONTINUED: THE OTHER CHLORINE CLEANSER—HYPOCHLOROUS ACID**

The most common, inexpensive and known to be most effective biocide is sodium hypochlorite, or chlorine bleach, a compound that hydrolyzes rapidly and almost completely in water to form almost equal parts of hypochlorous acid and sodium hydroxide (also known as lye or caustic soda). Prior to chlorine disinfectants being used in the routine treatment of drinking water about 150 years ago, it was very common for people to become ill and even die of waterborne diseases. Its first use in 1850 was in London, by the order of the physician John Snow<sup>2</sup> to disinfect the water supply after an outbreak of cholera. In the USA, the Department of Treasury called for all water to be disinfected with chlorine by 1918.

We need to focus on the component hypochlorous acid. Through the addition of HCl, hypochlorous acid results from the combination of bleach with water, and it is the active ingredient that actually kills the microorganisms. Unfortunately, with hydrolyzed sodium hypochlorite it's a mixed bag--even in 5.25% solution from the grocery store it is a dangerous and corrosive material!...Hence, the deterioration of fabric when you leave them in Clorox bleach too long. One gets the germ killing power from HCIO, but as a by-product you also get the toxic and corrosive hydroxides as a part of the mixture.

One of hypochlorous acid's (HCIO's) greatest weaknesses is also one of its greatest benefits: It is both a highly reactive and an unstable acid. It is also weak enough that it is not toxic to body tissue. HCIO exists temporarily before it degrades ( $\text{HCIO} \rightleftharpoons \text{OCl}^- + \text{H}^+$ ). Nonetheless since HCIO is considered to be a stronger oxidant than chlorine, it is the more potent biocide with 100x the killing power of chlorine bleach. This is because it reacts to such a wide variety of biomolecules including DNA, RNA, fatty acid groups, cholesterol, and other proteins. The folks at IEVM knew these facts. They also understood the technical difficulties to produce the compound, in commercially viable quantities, with the required degree of predictable consistency. These challenges had to be met in order to convince customers to include IETs supply into their process chains while also satisfying the FDA or USDA or EPA concerns about the reliability of quality, pH, and molarity.

French chemist Jerome Antoine Balard first identified HCIO and chlorine monoxide in 1834 while studying the chemistry of bleaching. After 1915, and as a result of the Great War, more than 200 bacterial action compounds were studied, chief among them hypochlorous acid. It was initially detected as an oxidating agent generated by neutrophils. It was obtained from seawater.

In 1917, studies by Henry Drysdale Dakin with sodium hypochlorite diluted to 0.50% as an irrigation liquid proved to be remarkable for the cleaning and disinfection of contaminated wounds. In 1958, Agnes investigated hypochlorous acid as an immunological substance and defense mechanisms for granulocytes.

Doctors learn about hypochlorous acid (HCIO) in medical school when they study its key role within the immune system. The body produces HCIO in abundance through commonly found white blood cells called *neutrophils*. These quite literally form the body's first line of defense against harmful microorganisms and act as an internal disinfectant.<sup>3</sup> In response to chemical signals produced by inflammation or trauma, neutrophils migrate through blood vessels and interstitial tissue to the site emitting the chemical signals. Once there, through a series of chemical reactions, the neutrophils will produce large quantities of HCIO.<sup>4</sup> The HCIO destroys the microorganism's cell membrane and deactivates key internal proteins. Neutrophils and the production of HCIO are essential for the body's resistance to pathogenic infections.

<sup>2</sup> John Snow (1813 to 1858), a British born physician and a leader in the adoption of anesthesia and who administered chloroform to Queen Victoria when she gave birth to the last two of her nine children. He is also deemed to be the father of epidemiology, hygiene and public health given his work regarding the outbreak of cholera in London.

<sup>3</sup> L Wang, PhD, M Bassiri, PhD, et al. *Hypochlorous Acid as a Potential Wound Care Agent*, J Burns Wounds. 2007; 6: e5. Published online 2007 April 11.

<sup>4</sup> Segal, AW (2005). "How Neutrophils Kill Microbes.". Annual Review Immunology 2005 23; 197-223.

As it turns out, though scientists have always taken for granted the disinfecting action of chlorine bleach, it wasn't until 2008 that a group of scientists working on research at the University of Michigan uncovered the mechanism by which chlorine kills microorganisms.<sup>5</sup> The group provided powerful arguments that HClO's damaging effects to bacteria during host defense and disinfection are likely due to its ability to cause protein unfolding and aggregation of proteins in the cell. Further, they managed to explain how HClO is more potent and rapidly acting compared with other known oxidants.

#### **METHODS FOR PRODUCING HYPOCHLOROUS ACID**

There are several methods for producing HClO, including chlorine-based chemical processes, which carry undesirable and hazardous byproducts as well as a higher degree of hazards. The three most commonly used methods of producing hypochlorous acid include the following:

- **Acidifying hypochlorite solutions:** This approach is considered to be very expensive. It carries with it significant potential for dangerous byproducts via side reactions: as a result it is typically limited with the use to weak organic acids, which tend to provoke gaseous chlorine discharge elevating the toxicity of the process. As such, the process is typically most often used in water treatment processes where residual chlorine levels are held below 0.5-5mg/l.
- **Dilution of chlorine gas in water:** As we learned in our preamble, this approach was used broadly in the swimming pool market several decades ago and subsequently was replaced for obvious reasons. It requires the implementation of special safety measures (Duh!, Author's Editorial comment.) and, as such this method is typically only used where the inexpensive disinfection of a large volumes of water is required and where active chlorine concentration is <10-15mg/l.
- **Production by electrolysis:** This last process uses an aqueous sodium chloride solution as a base, running current through a reaction cell containing the fluid causes the negatively charged chlorine (Cl<sup>-</sup>) and Oxygen (O<sup>-</sup>) ions to move to the anode or positive electrode. Conversely, the cathode (the negative electrode) attracts the positively charged sodium (Na<sup>+</sup>) and positively charged hydrogen (H<sup>+</sup>) ions, which is the most common industrial method for the creation of HClO solution.

#### **Electrochemical Activation (ECA), That's "Eca" technology To You**

The Company, based on ten years of research, development and commercial application, improved upon an electrolytic process called Electrochemical Activation (ECA), and they named the resultant proprietary system the EcaFlo® technology/system for producing high volumes of carefully controlled HClO solution.

***Electrochemical Activation (ECA):*** The process of passing a diluted saline solution and ordinary water through an electrolytic cell in order to generate, by electrochemical energy conversion, environmentally responsible, highly active, meta-stable solutions which possess electron-donor or electron-acceptor properties known as *catholytes* and *anolytes*.

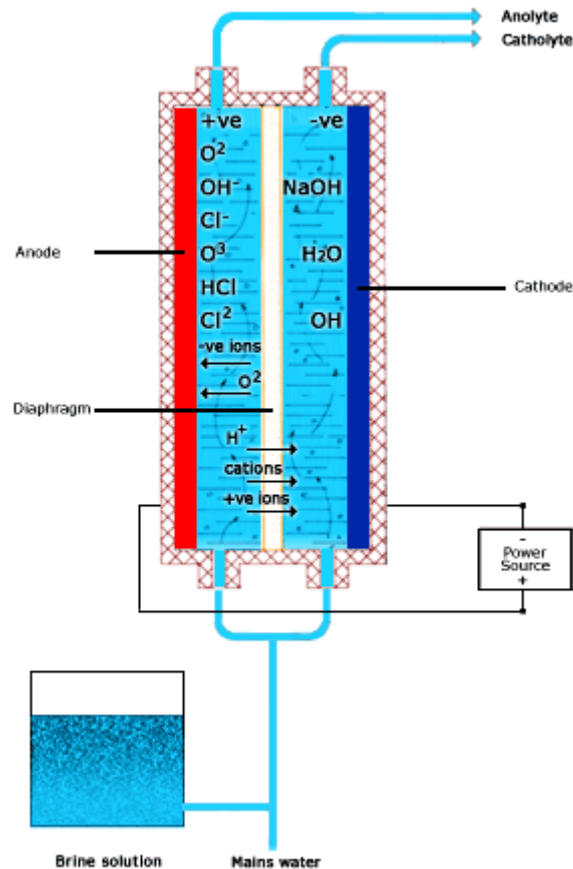
Electrolysis is the decomposition of substances, in this case salt, by electricity. As indicated previously, during electrolysis, the positive electrode attracts negatively charged chlorine (Cl<sup>-</sup>) and Oxygen (O<sup>-</sup>) ions; the negative electrode attracts positively charged sodium (Na<sup>+</sup>) and hydrogen (H<sup>+</sup>) ions.

At the anode:  $2\text{Cl}^- \rightarrow \text{Cl}_2 (\text{g}) + 2\text{e}^-$

At the cathode:  $2\text{H}^+ + 2\text{e}^- \rightarrow \text{H}_2 (\text{g})$

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<sup>5</sup> J. Winter, M. Ilbert, P.C.F. Graf, D. Özcelik and U. Jakob, "Bleach Activates a Redox-Regulated Chaperone by Oxidative Protein Unfolding"; *Journal Cell*; 2008.09.24; 691-701



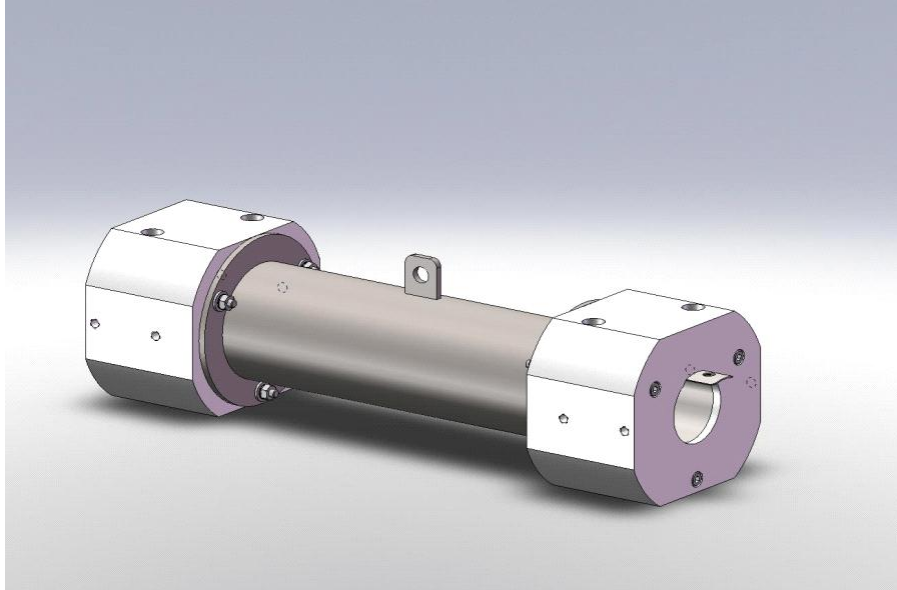
IEVM's EcaFlo® process incorporates a concept called diaphragmalyses, whereby a specially engineered ceramic diaphragm separates the two electrodes, enhancing the flow of ions to the electrodes but restricting the reverse flow. This allows IET's equipment to produce higher concentrations of ions than other known processes, while minimizing the potential for intermediate chemical reactions that would otherwise produce hazardous byproducts.

### **COMPANY PRODUCTS**

Commercialization of the Company's core ECA technology—both equipment and the output solutions—remains at the heart of IEVM revenue strategy. To that end, IEVM produces and sells ECA equipment and related supplies under the EcaFlo® trade name, and in addition it sells and distributes the solutions produced by its equipment through dealers and distributors under the EcaFlo® Anolyte and EcaFlo® Catholyte trade names. Under certain commercial agreements, they sell equipment and support for a fixed price and then receive ongoing payments (royalties) for solutions produced under the agreement. (We've included more details on this sort of agreement in the "Markets" section.) IET has this equipment sale/royalty agreed-to in servicing the oil and natural gas fracking market.

At the very core of the EcaFlo® system, the Company produces the EC100 Electrolytic Cell that incorporates both the necessary metals and layout for normal electrolysis as well as incorporating the ceramic diaphragm to separate the two electrodes and restrict the reverse flow of ions. The unit pictured here is of the earlier EC100 version. Through 2009, these components had been

### C100 Electrolytic Cell



Source: Company reports and presentations

produced for the Company by outside suppliers. IET's previous cell permitted a solution flow-rate of 21-31 gallons per hour apiece and a minimum of 2000 hours of "continuous" operations. As many as four cells could be installed into one EcaFlo® system at a time enabling the per-system production of up to 1,200 gallons of Anolyte solution per 18 hour "operating-cycle day." Incidentally, this shortened "operating-cycle day" is required for automatic de-mineralizing and system maintenance.

#### Key features of the **new EC100 Cell**:

- 100 Liter, High Performance Electrolytic Cell;
- Proprietary Coating of Precious Metals on Anode;
- Proprietary Precision Machined Ceramic Diaphragm;
- Precision Machined End Caps;
- Each Cell Individually Tested for Performance Specifications;
- 5000 hours of warranted operation.

When we visited IEVM in Little River, we became privy to the newly designed, electrolytic cell that was about to make its debut. This new component is made with improved design features that allow for better fluid flow control and cell assembly; it is more ruggedly constructed; and it has the real potential of a much longer operating life. Combined, this new cell could really provide the EcaFlo® System a quantum leap in owner operating performance. But despite all these great features, it is the flow control hardware and systems, combined in the cabinet, as well as the operating software algorithms, that truly provide IEVM's EcaFlo® system the operating edge over other manufactures' equipment. It has taken years of development and multiple model changes to have fashioned a reliable operating package that not only functions dependably but also one that with fine adjustments in current and solute and brine flow that can precisely determine the outcome of hypochlorous acid desired.

### EcaFlo® Model C-104



By controlling these factors very precisely, the Company can produce Anolyte at a minimum of 500 ppm free available chlorine (FAC) at a 6.5 pH and 850+ mV ORP, higher concentrations than any competing system on the market. Further, the EcaFlo® system can produce solution anywhere from almost pure anolyte to nearly pure catholyte and every gradation in between, with great accuracy, dependability and reliability. Automation, proprietary software and touch-screen/PLC interface available in EcaFlo® devices assures the operator of dependable operation, consistent fluid properties and ease of operation.

The ability to precisely adjust the pH of output solution makes EcaFlo® equipment unique from other ECA devices. EcaFlo® equipment produces mostly hypochlorous acid. The Anolyte produced at 6.5 pH is efficient and efficacious, as the percentage of Free Available Chlorine (FAC) in the solution is approximately 92% hypochlorous acid.

Two solutions have developed strong commercial interest and substantial market potential:

**EcaFlo® Anolyte** is a strong oxidizing solution formed from naturally occurring elements that kills unwanted microorganisms and pathogens.

- pH range of 3.5 – 8.5 and an Oxidation-Reduction Potential (ORP) of +600 to +1200 mV.
- Typical use for Anolyte is as a disinfectant against biological microorganisms and pathogens;
- It has proven to be 100-times more effective than hypochlorite (bleach) as an anti-microbial.
- Most importantly, EcaFlo® Anolyte has US EPA Pesticide Reg. # 82341-1.

**The Following Table Displays the Effect of EcaFlo® Anolyte versus Biofilms and Pathogens**

*(“0”s Indicate no CFU’s (Colony-Forming Units or Pathogens) Remaining*

**Dilute EcaFlo® Bactericidal Activity**

Test organism	Time Exposure, min	Dilution rate of EcaFlo® (Anolyte pH 6.8, FAC – 200ppm)			
		1:100	1:200	1:500	1:1000
<i>E.coli</i>	0.5	0	0	0	TNTC
	10	0	0	0	TNTC
	30	0	0	0	-
<i>Salmonella enteritidis</i>	0.5	0	0	0	TNTC
	10	0	0	0	TNTC
	30	0	0	0	-
<i>Shigella dysenteriae</i>	0.5	0	0	0	TNTC
	10	0	0	0	0
	30	0	0	0	-
<i>Vibrio Cholerae</i>	0.5	0	0	0	0
	10	0	0	0	0
	30	0	0	0	-

Test organisms inoculum levels, cfu/ml: *E. coli* – 1.8x10<sup>7</sup>  
*Salmonella enteritidis* – 1.4x10<sup>7</sup>      *Shigella dysenteriae* – 1.8x10<sup>7</sup>  
*Vibrio Cholerae* - 3.9x10<sup>6</sup>  
(0.1 ml of test culture was added to 0.9 ml of dilute anolyte)

Source: Company reports

**EcaFlo® Catholyte** is an anti-oxidizing, mildly alkaline solution ideal for use as a degreaser, cleaner, and detergent.

- pH range of 10.5 to 12.0 and ORP of –600 to –900 mV.

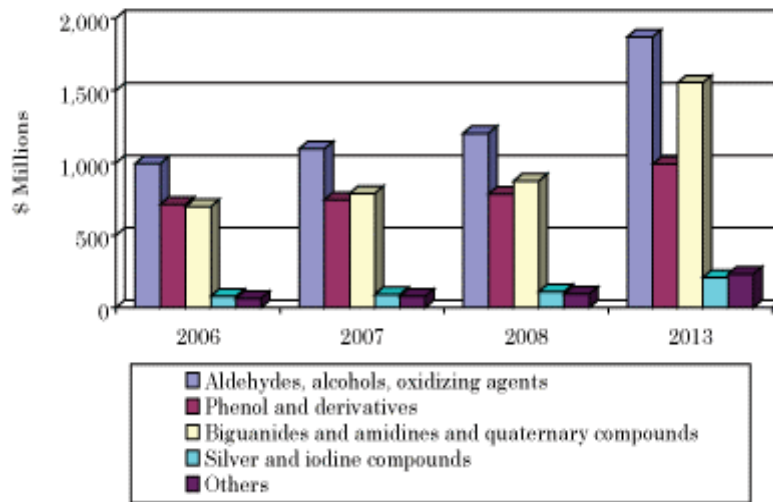
Right now, opportunities abound for the Company in the oil and gas patch. The combination of demand for gas, rubbing up against environmental concerns regarding “fracking” fluids permeating ground-water tables and water supplies, is causing a tremendous political storm. IEVM’s oil and gas marketing partner, Benchmark Performance Group, Inc., is producing IET-based solutions tailor-made to answer the needs of the market. One is called Excelyte® (Benchmark’s branded name for IET’s EcaFlo® Anolyte.) that enhances field operations and adds value to the petroleum production process. We are beginning to witness the start of what appears to be substantial demand for Excleyte® due to the factors described above...not only within the Marcellus shale geologic formation but formations found across the country. (More on Benchmark and their position in this exciting opportunity in "Markets" section.)

**BIGGER THAN BIG: MARKETS FOR PRODUCTS ARE SUBSTANTIAL**

The market for antimicrobials, disinfectants and sanitizers is enormous. Estimates for the global market for antiseptic and disinfectant technologies were worth \$2.8 billion in 2007 and \$3.1 billion in 2008, respectively and are expected to increase to over \$4.9 billion by 2013. This amounts to nearly +9.6% compounded annual growth. (See the adjoining bar chart.) However, this does not include most industrial chlorite production as it tends to be made from precursor elements on site due to transport/safety issues.

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SUMMARY FIGURE  
GLOBAL SALES FOR THE ANTISEPTICS AND DISINFECTANTS, 2006-2013  
(\$ MILLIONS)



Source: BCC Research

EcaFlo® Anolyte could conceivably replace virtually all applications for chlorine-related antimicrobials from an efficacy and efficiency standpoint. Furthermore, the economics are compelling given the low cost to produce Anolyte. Lastly, the only real drawback of Anolyte is its greatest benefit—it is its relatively short shelf life. EcaFlo® Anolyte has roughly a 30-day shelf life before some degradation occurs; it is “known” not to persist in the ecosystem for long periods of time thereby not exposing animal and plant life to potential hazard. Also unlike its chloride brethren, Anolyte does not tend to decompose or form into some of the harmful, cancer-causing

chlorine derivatives that persist in the environment and tend to cause real epidemiological havoc.

The Company and its marketing/distribution partners target the following market segments:

- Hydraulic “Fracking” of Oil and Gas wells;
- The food safety and agricultural applications for the removal of bacteria and germs;
- Storm-water treatment;
- Water and wastewater treatment;
- Medical facility disinfection;
- Hard surface sanitation (e.g. recent entry into the professional sports market— Toyota Center, Houston, Texas.).

Each of these markets present interesting market opportunities: However, one opportunity, oil and natural gas well "fracking", not only presents both “pulse-elevating” fundamentals and strong social and political tailwinds but the opportunity is upon investors today. Additionally, IEVM has a committed industry partner, Benchmark Performance Group, Inc., that is a major and established supplier in the market space. This partner has been analyzing and evaluating the EcaFlo® opportunity for almost three years and working with some of the best-known names in the oil and gas exploration business.

### **Oil and Gas Industry Applications: EcaFlo® Anolyte is an EPA Registered Product**

The use of fracking in combination with better horizontal drilling technology has opened to exploration vast natural shale gas reserves from Texas to western New York state—energy reserves previously believed to be locked beneath deep underground shale formations. However, widespread use of modern fracking techniques has raised public concerns about potential contamination of drinking water supplies.

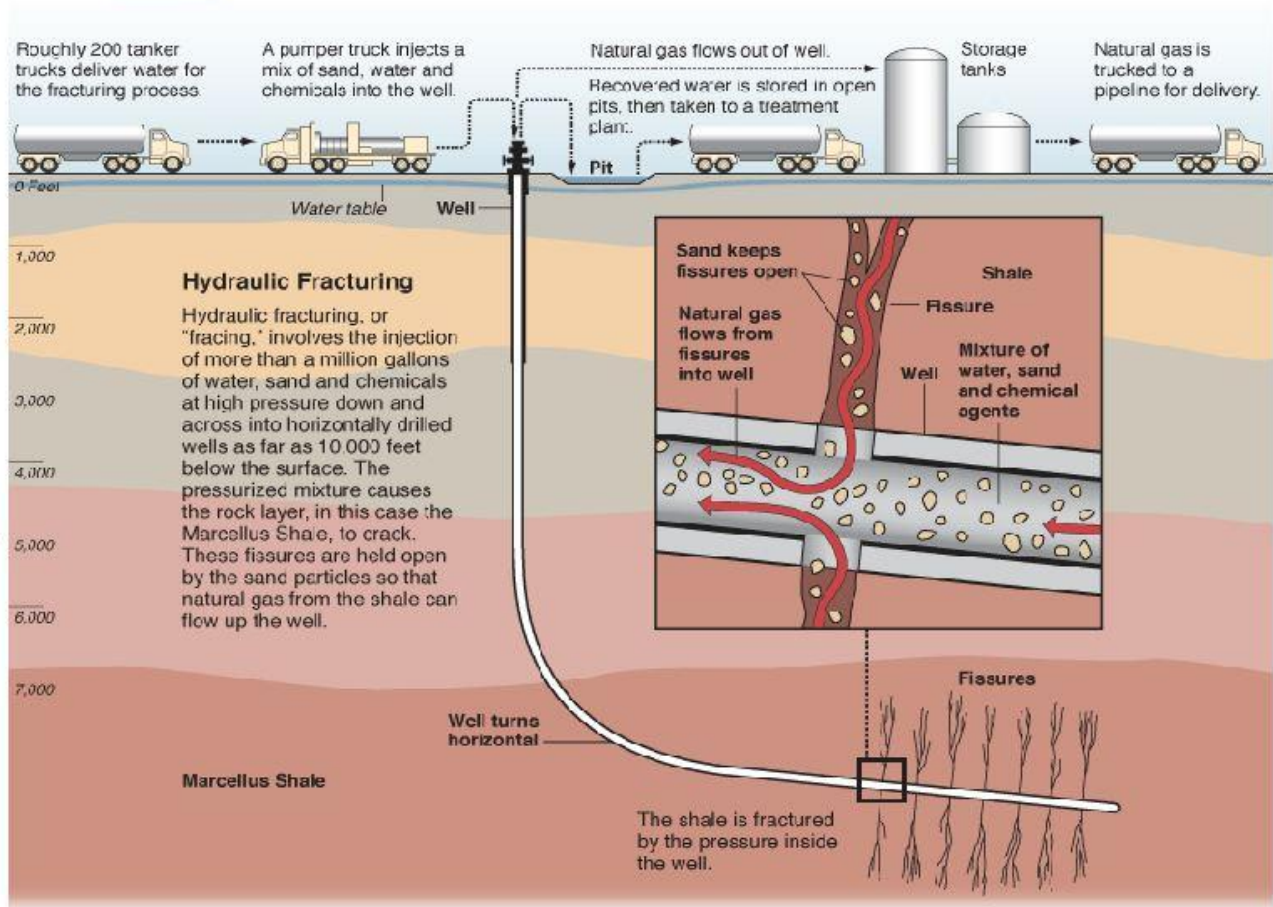
Fracking fluid is pumped into wells at high pressure to more completely fracture rock formations and release natural gas. These fluids contain sand (proppants) and vast amounts of water in addition to chemicals that can be very toxic to humans. Preventing underground leaks of fracking fluid requires proper installation of well casings and careful monitoring. Surface water contamination is also a concern because once drilling is completed the fluids are brought to the surface and often stored in open ponds.

EcaFlo® Anolyte has been registered by the EPA (and hence, has been granted “approval”) for use in many oil and gas industry applications:

- Frack water
- Heater treaters
- Flood injection waters
- Oil and gas transmission lines
- Hydrocarbon storage facilities
- Gas storage wells
- Sour wells
- Produced waters

Recent data collected from field operations where frack water was treated with anolyte showed that the bacteria levels in the frack water were reduced below the threshold levels that would adversely impact stimulation fluids and gels. Furthermore, EcaFlo® Anolyte is considered non-hazardous by the US Department of Transportation. Protective equipment and site safety measures are not required for EcaFlo® Anolyte applications. Once EcaFlo® Anolyte has fully degraded, it leaves no ecological damage to well sites. So, not only are transportation costs lowered but site remediation processes are less stringent and costs are less onerous. All around, EcaFlo® should save the field service operators grief and environmentalists subterranean concerns.

**Hydraulic "Fracking" in the Oil and Gas Industry**



Source: <http://www.propublica.org/special/hydraulic-fracturing>

Graphic by Al Granberg

Additionally, the Company's Catholyte solution has been shown to substantially reduce the surface tension of water and can be used to condition water used to stimulate well production.

**The Gas Story SIZZLE:** With the 2005 passing of the Safe Drinking Water Act, Congress exempted fracking from federal water protection standards and exempted well site activities from discharge permit requirements

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leaving states to regulate with requirements varying greatly state by state. New York has suspended gas exploration from the Marcellus Shale—what is proposed to be one of the Nation’s most productive gas fields known—until it creates its own protection rules to sufficiently protect water resource supplies.

Congress has taken up the issue from the Subcommittee on Energy and Environment in the House of Representatives, exerting considerable pressure on industry participants and demanding that it engage in positive disclosure. On February 18, 2010, Chairman Henry Waxman (D-CA) and Edward J. Markey (D - MA) sent a memorandum to eight oil and gas service companies regarding the chemicals used in hydraulic fracturing, requesting documents in several key areas:

- The number and location of wells using hydraulic fracturing in each state in 2008 and 2009
- The total volume of production and chemicals used in the process
- Health and environmental effects of the fluids
- Allegations that the process harms human health or the environment
- The percentage of fluids recovered
- The volume of flowback and produced water

In a memo to the Subcommittee on Energy and Environment that day, Reps. Waxman and Markey also argued that “information is needed to assess whether the use of the chemicals [in fracking] posed a threat to drinking water supplies”.

We believe these political developments position the Company well, especially given the Company's EPA registration. In fact, the primary use of Excelyte® is to eliminate bacteria in water employed “downhole” in oil and gas wells. Bacteria are often responsible for pipe corrosion problems, actually causing “blooms” within the subterranean structure of the “frac” and therefore plugging-up the “opened” strata as well as for the creation of hazardous hydrogen sulfide gas (H<sub>2</sub>S). By eliminating these problem-bacteria from water used to treat wells, operators are mitigating potential damage to their wells, the stratum, and minimizing the potential for generating H<sub>2</sub>S. To date, nearly one million gallons of Excelyte® have been manufactured for use in downhole oil and gas applications.

Today, Excelyte® is being used to enhance production from wells which have been impacted by downhole growth of bacteria, and other microorganisms, by killing the bacteria and removing the restrictive biomass.

#### **#2 IS A CLOSE SECOND — AGRICULTURAL APPLICATIONS:**

**Fruit and vegetable processing:** Remember what happened in June of 2008? The CDC reported that at least 167 people in 17 states had been infected with Salmonella Saintpaul. This outbreak spread across Arizona, California, Colorado, Connecticut, Idaho, Illinois, Indiana, Kansas, Michigan New Mexico, Oklahoma, Oregon, Texas, Utah, Virginia, and Washington. Twice it was spinach: once in late summer, 2007 and September, 2009. Then it was peppers. Remember the controversy about whether some vegetables are really fruits (where are the ovaries?) and how that affects the incidence of Salmonella?

The point is that all of us of late are being exposed to fresh foods that are more likely to be contaminated with bacteria (and with plastic bag “bounties” becoming rife through-out the country, cross-contamination within one’s own grocery bag may become a greater likelihood.)

That said—food processing, fungicidal control, and even water treatment—EcaFlo® Anolyte can be as much as 100x more efficient than the bleach solutions traditionally used to mitigate pathogens in food processing, water disinfection, and fungicidal control. When produced at 6.5 pH, EcaFlo® Anolyte is 99.95% water with the active ingredient of 0.046% hypochlorous acid. Published data supports the efficacy of hypochlorous acid as a strong oxidizing solution that quickly destroys microorganisms and pathogens on fruits, vegetables, and processing equipment without leaving a harmful residue.

**Halleluiah!! The USDA Food Safety Inspection Services approved EcaFlo® Anolyte** for use in federally inspected commercial plants producing meat, poultry or egg products and the FDA approved its use in meatpacking and processing plants as an alternative to chlorine solutions.

Recent research conducted by Coastal Carolina University, Conway, SC, and funded by a USDA SBIR Grant has confirmed that EcaFlo® Anolyte has proven to be an effective biocide and antimicrobial agent against numerous food borne pathogens such as Staphylococcus aureus, Listeria monocytogenes, Enterococcus faecalis, Salmonella typhimurium, and E. coli 0157:H7. The research also concluded that EcaFlo® Anolyte significantly reduces Botrytis cinerea and Monilinia fructicola on fruit crops such as green table grapes, strawberries, and peaches.

Taking a slightly different twist on the food production twist, the Company's EcaFlo® Anolyte is being tested in several areas in the field of animal husbandry and breeding. Our take on this is that it stands as the first uses for IEVM's solutions in the field of protein production and will certainly expand with time.

**Egg production:** To start, the Company has an EcaFlo® system at a very successful, 800,000-bird, Ohio, egg production facility (this is actually small by commercial production standards) where EcaFlo® Anolyte is added to the drinking water. The ionized solution has been added to the hens' diet for about 18-months at a maximum 5 ppm level. The Anolyte has not only helped clear the system of bacteriological infection and biofilm but aided the birds as well. Results were noticed within a few months where a 27% drop in mortality occurred (A huge figure in the poultry arena particularly since dead hens don't lay eggs!); they naturally produced more eggs. Additionally, the "rancher" witnessed a significant improvement in feed conversion, which translated into nearly a 6.7% reduction in feed consumption and a \$960 cost savings per day. Just between the improvement in feed costs and lower need for antibiotics, the use of Anolyte in the water paid for the EcaFlo machine in a couple short months.

Thoughts of using the EcaFlo® Anolyte within egg "cracking plants" would be a natural extension for both of IEVM's ionized solutions. By way of background, these are the operations where eggs are produced without the shells for products like "EggBeaters" or scrambled eggs from a bottle, or freeze-dried eggs for processed foods. IEVM's catholyte could be used to replace chlorine bleach in the washing process and the anolytes would replace the disinfecting of the eggs, the plant hard surfaces, tank-truck containers and equipment.

**Poultry meat production:** There has been a lengthy discussion about changing the U.S. poultry production standards as to how we produce and pack poultry meat. Currently, U.S. poultry suppliers might revamp their poultry processing methods seeing that our processing methods don't meet Russian standards and that country has become such a significant foreign export customer.

The United States producers supplied Russia with 750,000 metric tons of poultry in 2009 — roughly 20% of market demand — and it was expected to supply an additional 600,000 metric tons in 2010 for a total of 1.35 million metric tons. U.S. Poultry producers hoped for a quick resolution to the "chlorine problem," James Sumner, president of the USA Poultry & Egg Export Council, said last month.

After long-planned regulations went into effect which forbade the import of poultry treated with chlorine in the Slavic nation, the Russian Government's Federal Consumer Protection Service, which had signed the measure in June 2008 to change its regulations, pushed back the measure's starting date to Jan. 1, 2010<sup>6</sup> to better accommodate import requirements.

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<sup>6</sup> *U.S. Delegation Arrives for Poultry Talks*, The Moscow Times, 02March 2010

Like with the “cracked egg” situation, EcaFlo® Anolyte may be a perfect alternative to chlorine bleach and other old solutions if inspectors and regulators are willing to open-up and learn about another related alternative. Yes, it takes a different concentration and exposure time, but in the long-run may actually save lives, time and money.

Poultry meat processing could be considered the “holy grail” or the equivalent of the “Marcellus geologic formation” of food processing. The potential for a company like IEVM is substantial because the task is monumental. The U.S. is the largest producer of poultry meat in the world, generating 43 billion pounds per year. There are almost 8,000 high-production brooding facilities and 7,000 USDA inspectors just to monitor their operation. We won’t contaminate this report with and ruin your next meal with a dissertation on the diseases that poultry are known to foster. It is sufficient to say that much more could be done to improve sanitary conditions.

Changes in laws and regulatory standards take time, money, and changes in attitudes and these will not happen without considerable effort by IEVM and the industry participants; and only then if the latter desires to see improvements.

**Dairy cow, cattle and swine health:** A distributor in Ontario, Canada has purchased machines to produce EcaFlo® Anolyte for improving herd health. One is being used to introduce anolyte to dairy herd drinking water, thus reducing the bacteria built up in the piping systems of the irrigation and watering system. This reduction of biofilm has not only reduced bacteria count in the water but reduced the need for antibiotics in the herd and made for happier, more milk-producing milchers.

Additionally, there are reports that Hutterite communities are using EcaFlo® Anolyte in their swine water. They say it allows them to reduce the amount of chlorine used to treat the water supply and consequently the pigs gained weight more quickly and, once again, the farmers reduced the use of antibiotics for the animals.

**Healthcare applications:** Returning to some of our original comments regarding community health and Snow’s effort to control disease among a city’s population, IEVM’s solutions are being put to use for that very purpose. Besides the Toyota Center, which is being sprayed-down after each game for H1N1 and University General Hospital, which uses EcaFlo® Anolyte as a disinfectant, the same Houston distributor is discussing with the local Wal-Marts and Targets the routine treatment of facilities with Anolyte as well as other facilities in the area use of the solutions for germ control. They are having discussions with Oklahoma Casinos about the treatment of those facilities, as well.

In Brooklyn, NY, IEVM has recently broken ground with the local municipal agencies. There is real interest in purchasing machines to deliver EcaFlo® Anolyte to treat an array of surface areas. Leads include certain grocery stores, meat packers and processing facilities, transit authority subway and buses, schools...The list of potential opportunities seems endless.

### **IEVM OPERATING STRATEGY**

IEVM currently operates with only eleven full-time personnel, which includes management, and a great deal of that labor time is devoted to continuing to advance development of its most recent generation equipment and related cells in an ongoing effort to refine the capabilities of its systems and drive down the cost of manufacturing. While management was early to recognize the potential applications within the oil and gas industry, they chose to address these opportunities through the use of industry partnerships, where they can piggyback existing relationships and channels in hopes of easing entry into new markets.

For reasons that will become patently clear as you read the next paragraphs, IEVM has contracted to upgrade and expand its Little River production facility in order to increase their manufacturing capacity several-fold.

Right now, IEV can produce about one EcaFlo® unit every two-and-a-half to three days. Moreover, the layout of the facility is not very efficient for production versus testing and shipping. Incidentally, the addition of in-house manufacturing of the electrolysis cell—again a great way to improve cost efficiencies as well as a new revenue source—would need a new, separate manufacturing line outfit as well. In order to meet orders on the books and anticipated follow-on orders, as anticipated, management initiated a \$350,000 expansion that should be completed by late spring, 2010. We believe it will take 3-5 months to achieve the higher production levels due to the need to identify and train production staff members to handle the load and run-out any operating kinks in the line due to the changes.

**Current Events:** The reason for the expansion and the ramp-up witnessed so far dates back to June 2007. IEVM entered into an Exclusive License and Distribution Agreement with Benchmark Energy Products (BEP) of Houston, Texas. BEP stands as one of the largest providers of specialty chemicals to the oil and gas industry, with over 250 employees, research and manufacturing centers in Midland, Texas, Lovelady, Texas and Rock Springs, Wyoming, and distribution facilities in Arkansas, California, Colorado, New Mexico, Oklahoma, Texas, Utah, West Virginia and Wyoming. Benchmark owns more than 35 process and application patents and has developed the unique, value-added SlurryService® and SlurryWatch® systems for delivering consistently high quality polymer slurries to the far-flung domestic field operation centers of the world's leading oilfield service companies.

Benchmark provides both EcaFlo® equipment and Excelyte® (Benchmark's branded name for EcaFlo® Anolyte) to oil and gas service companies in order to enhance field operations and add value to the petroleum product production process. Benchmark has successfully completed several commercial frac fluid supply and service jobs at beta sites, testing Excelyte® as a down-hole biocide for the oil and gas industry: These test fracs were in conjunction with one of the world's largest service companies that was most impressed with the benefits of the well returns. Additionally, Benchmark assists IEVM in opening doors and entering other new markets such as health care, animal care, special contracts, sports, and many others.

The exclusive, worldwide right, license, and authority to market, manufacture, sell and distribute EcaFlo® fluids and solutions for use in oilfield applications is essentially held by Benchmark Energy Products. The agreement provides for special pricing of equipment to Benchmark and per-gallon technology fees, paid to IET on the EcaFlo® fluids sold by Benchmark for a five-year license period. As one might assume, there are price break points being discussed, but the technology fee paid starts at roughly \$0.25 per gallon and already customer demand is estimated—for the first contracts to be satisfied rolling through the next 12-months—in the tens of millions of gallons.

Further, the Company has a marketing and distribution relationship with D2W2, LLC as distributor and lead agent into the pre- and post-harvest agricultural market. Jointly, IEVM and D2W2 are working to develop cleansing and biocide solutions for treatment of agricultural food products for a leading, globally-known food production company. We believe this relationship has ripened to the point where the initial beta test has proven the concept and is advancing to the production roll-out. We expect a significant announcement to blossom any day.

In late 2009, IEVM inked a license agreement with a Geneva, Switzerland holding company, Atlas Developpement, S.A. ("Atlas"), granting exclusive right, license and authority to market, sell and distribute EcaFlo® equipment and solutions for use in France in all markets except oil and gas. The agreement provides for per liter technology fees paid to IET on the EcaFlo® fluids sold by Atlas. The initial term of the agreement is for one year.



### **REGULATORY MATTERS**

Depending on the market addressed, the IEVM is subject to extensive local, state and federal laws and agency regulations and it encounters additional oversight in foreign sovereignties. The Company and its partners have done extensive testing and field groundwork to obtain the appropriate approvals and certifications for each target market:

- IEVM is the first and only fully “green” hospital-level disinfectant to be registered as such by the United States E.P.A. (8234-1)
- It received Underwriters Laboratories Inc. UL® certification for electrical safety.
- IET has National Science Foundation NSF-61 Water Treatment equipment certification.
- The Company has a patent pending on Oil and Gas Industry equipment and uses.
- Codes of Federal Regulation (CFR)-allowed by the USDA, EPA, and FDA.
- IET has received the European Union CE Mark.
- EcaFlo® has been proven to be built to meet the Canadian CSA Electrical Standards.

Further, IEVM is actively pursuing FDA 510(k) approval for the Anolyte® product for use as a topical disinfectant for use in critical and semi-critical patient treatment areas and patient care devices. We expect another announcement to soon be made regarding IEVM’s solutions food service.

### **RECENT DEVELOPMENTS**

Investors will look at Integrated Environmental Technology with considerable mistrust...that typical of the normal “show-me” investor. They’ll ask, “Here is another ‘Hockey Stick Wonder’ just ready to disappoint!” IEVM just may surprise those Missouri doubters this time around since it has spent the better part of the past three years “hunkered-down,” sticking to its own business, keeping costs to a bare minimum and most importantly laying the groundwork for the commercialization of its EcaFlo® systems, related supplies and solutions.

Several recent events indicate how IEVM is succeeding to gain traction in key market areas:

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- **March 19, 2010: Integrated Environmental Technologies, LTD. and Benchmark Performance Group Announce Successful, Large-Volume Use of Excelyte® in Gas Well Fracture Project in the Marcellus Shale:** The two Companies jointly announced today that the EPA-registered product, Excelyte®, has again been successfully used in a gas well fracturing treatment; this time in the Pennsylvania's Marcellus Shale. The treatment began mid-February and continued through mid-March and required 175,000 gallons of Excelyte® to be available to cover the multi-stage treatment required to hydraulic fracture stimulate the well. The primary use of Excelyte® is to eliminate oilfield bacteria in the water employed in oil and gas wells, which is most often responsible for pipe corrosion problems, for hazardous Hydrogen sulfide gas, as well as deep-hole bacteria blooming.
- **February 23, 2010: Integrated Environmental Technologies, LTD. Receives Significant Order of ECAFLO® Equipment for Benchmark Performance Group:** Integrated Environmental Technologies, Ltd. (OTC:BB "IEVM") announced today that Benchmark Performance Group, Inc. has ordered an additional ten (10) of IET's EcaFlo® Model C-104 units. Benchmark will deploy the new units at its Regional Distribution Center in the northeastern U.S., in close proximity to its oil and gas service company business in that region. "This marks the full-fledged entry of our EcaFlo® equipment and the use of the highly efficacious micro-biocide solutions it produces into the oil and gas industry in what is planned to be a strategic roll-out throughout the industry," stated IET's President and CEO, Bill Prince.
- **February 3, 2010: Press Release To Update Oil and Gas Industry Commercialization Efforts:** Integrated Environmental Technologies, Ltd. (OTC:BB "IEVM") and Benchmark Performance Group, Inc., jointly announced today that the EPA-registered product, Excelyte®, has successfully been used in a number of gas well fracturing treatments. Benchmark has also been informed that more fracturing jobs utilizing Excelyte® are planned for the future. To date, several hundred thousand gallons of Excelyte® have been manufactured for use in oil and gas applications. The primary use of Excelyte® is to eliminate oilfield bacteria in water employed in oil and gas wells.
- **December 17, 2009: Integrated Environmental Technologies, Ltd. Announces Additional Sales In Ontario, Canada:** Integrated Environmental Technologies, Ltd. (OTCBB: IEVM) today announced that Aquacharge, the exclusive EcaFlo® distributor for the Province of Ontario, Canada, has placed an order for its fourth EcaFlo® unit since August of 2008. Focusing on agricultural and animal husbandry applications, Aquacharge is providing EcaFlo® equipment throughout southern Ontario where farms are experiencing improved crop yields and enhanced animal health as a result of use of EcaFlo® Anolyte generated by IET's EcaFlo® equipment.
- **November 18, 2009: IET Announces Benchmark Performance Group Completes New EXCELYTE® Expansion at its Midland Texas Facility:** Integrated Environmental Technologies, Ltd. ("IEVM:OB") announces that Benchmark Performance Group, Inc., its exclusive worldwide distributor serving the oil and gas industry, has completed the expansion of its Excelyte® manufacturing plant at its Midland, Texas facility. This expansion has significantly increased capacity over its original plant capabilities. Benchmark markets IEVM's EcaFlo® Anolyte under the registered trade name, Excelyte®. EcaFlo® Anolyte received its EPA product registration on August 18, 2008 and is the only environmentally responsible biocide of its kind.

## OUTLOOK

After several years of product and market development, the Company is seeing strong demand for its current generation equipment from commercial users in the oil and gas industry as well as from a globally known fresh food packager. In the case of the former, it appears Benchmark, with an assist from the EPA, has turned the tide in the gas well services arena and Excelyte® is now becoming better recognized as a "green" solution to the

environmental problems and slowdowns to development. Excelyte® has demonstrated its utility as a highly efficacious biocide, while meeting 'green' criteria that ensure the protection of sub-surface waters at the hydraulic fracturing site.

On February 18, 2010, Henry Waxman, (D-CA), the Chairman of the House Subcommittee, sent out letters to eight oil and gas services companies requesting additional information disclosing certain practices pertaining to the use of hydraulic fracturing fluids and the potential impact of those practices on the environment and human health. As Chairman of the Committee on Oversight and Government Reform in the last Congress, Rep. Waxman requested and received information from the largest hydraulic fracturing companies - Halliburton, BJ Services, and Schlumberger - on the chemicals used in their fracturing fluids.

- Two of these companies used diesel fuel in their fracturing fluids between 2005 and 2007, potentially violating a voluntary agreement with EPA to cease using diesel.
- Halliburton reported using more than 807,000 gallons of seven diesel-based fluids.
- BJ Services reported using 2,500 gallons of diesel-based fluids in several fracturing jobs.
- Halliburton and BJ Services also indicated that they used other chemicals - such as benzene, toluene, ethylbenzene, and xylene - that could pose environmental risks in their fracturing fluids.

The letter sent sought additional information from Halliburton, BJ Services, and Schlumberger on these and related issues. Further, the Committee requested similar information from five smaller fracturing companies that comprise a growing share of the market: Frac Tech Services, Superior Well Services, Universal Well Services, Sanjel Corporation, and Calfrac Well Services.

We believe the intense scrutiny being placed on drilling service companies which are working on these deep shale formations is further forcing drillers to change their methods. This, combined with IEVM's successful, "proofs-of-concept," beta projects, should provide IEVM a strong tailwind for the foreseeable future. The Company has the only EPA registered "green" biocide on the market and, while others are working on their own solutions to this problem, most involve contamination remediation rather than avoidance. Companies are quickly learning that they can accomplish the same job with EcaFlo® Anolyte, within the same or less, operating budget, while saving potentially thousands of dollars in remediation and reporting that would be associated with conventional fracking fluids.

Based on orders from Benchmark and expected follow-on orders to roll-out Excelyte® production to each of its 10 distribution centers, we project IEVM will ship roughly \$3 million - \$4 million in equipment during 2010, not including technology royalties. Final negotiations are underway on the annual rate, but based on \$0.25/gallon, which we feel is reasonable, at full production this should generate an additional \$2.5 million to \$3.5 million in revenues. For 2011, we expect equipment sales will taper off a bit to \$2.5 million to the \$3.5 million range, while royalties should increase to \$8.0 million to \$10.0 million.

A similar story is playing out in the fresh food processing area, where the Company formed a partnership with D2W2, LLC. This group of former Conagra Food Company and Fortune 100 executives has been evaluating the use of the Company's Anolyte and Catholyte solutions to address the problems of their client's fresh vegetable-borne Staphylococcus, Listeria, Enterococcus, Salmonella, typhimurium, and E. coli found on in-store product.

After months of testing and tweaking, that operator is ready to roll-out broader production usage, extending their proprietary process throughout the plant's lines and ultimately, throughout all the Company's facilities located in the U.S.A. and to many facilities offshore. We estimate this engagement will yield orders for \$2+ million in EcaFlo equipment in 2010, and could double in 2011. Technology royalties will be more modest in this

segment because the margins in the food processing industry are not as generous to begin with: Hence, we are projecting \$300,000 in fee revenue for 2010 and \$800,000 in 2011.

### VALUATION/RECOMMENDATION

**We believe IEVM is on the threshold of a significant ramp in growth as a result of the rapid adoption and field deployment of its proprietary EcaFlo® systems for both the oil and gas and food processing industries.** Further, given the distinctive capabilities of the EcaFlo equipment and the output Anolyte and Catholyte solutions, IEVM is able to negotiate and collect ongoing production royalties - essentially claims against future production of solution by distribution partners.

#### **Integrated Environmental Technologies Ltd.**

Valuation Comps

Name	Sym	Recent Px	TTM Revs	EBITDA	# Shs Out	Mkt Cap	EV/ Revs	EV/ EBITDA	YTY % Rev Chg MRQ
Dril-Quip, Inc.	DRQ	\$ 61.74	\$ 540.20	165.26	39.75	2,454.17	4.18	13.66	4.30%
Cameron Int'l Corp.	CAM	\$ 43.55	\$5,220.00	967.54	244.46	10,646.23	1.92	10.37	-3.90%
Ecosphere Technologies, Inc.	ESPH	\$ 1.10	\$ 0.83	(8.28)	114.00	125.40	158.16	NM	191.60%

Mean 54.75 12.02

Median 4.18 12.02

**Integrated Environmental Tech IEVM \$ 0.25 \$ 0.22 (1.42) 84.17 20.62 99.61 NM -53.6%**

Sources: Company SEC documents and CFR estimates

The dearth of pure-play comps led us to examine drilling equipment/drilling services providers, since more than half of our 2010 revenue projections are derived from that segment. Further, the valuation of companies in this segment reflect similar underlying fundamentals in terms of shale formation drilling that we expect will be a major driver of IEVM's business going forward.

The richest valuation on an enterprise value (EV)/sales and EV/EBITDA earned by ESPH results largely from the outsized revenue growth demonstrated in recent quarters and expected in the future periods. The mean and median measures for our small group exceed market averages, reflective of underlying growth fundamentals tied to the energy markets.

Our detailed earnings model assumes 2010 revenues of \$10.6 million, \$4.5 million EBITDA and EPS of \$0.05. For 2011, we project \$20.1 million in revenue, \$12.5 million EBITDA and \$0.10 EPS (partially taxed).

We believe IEVM shares will experience significant share price appreciation over the coming twelve months as investors become aware of the strong fundamental story and premium competitive position of the operation. The business as we can ascertain is certainly one of those "Special Situations," which immediately means that it is hard to grasp as an investment and quantify its "value" (as we found out) by investors but once accomplished holders will award a true premium valuation.

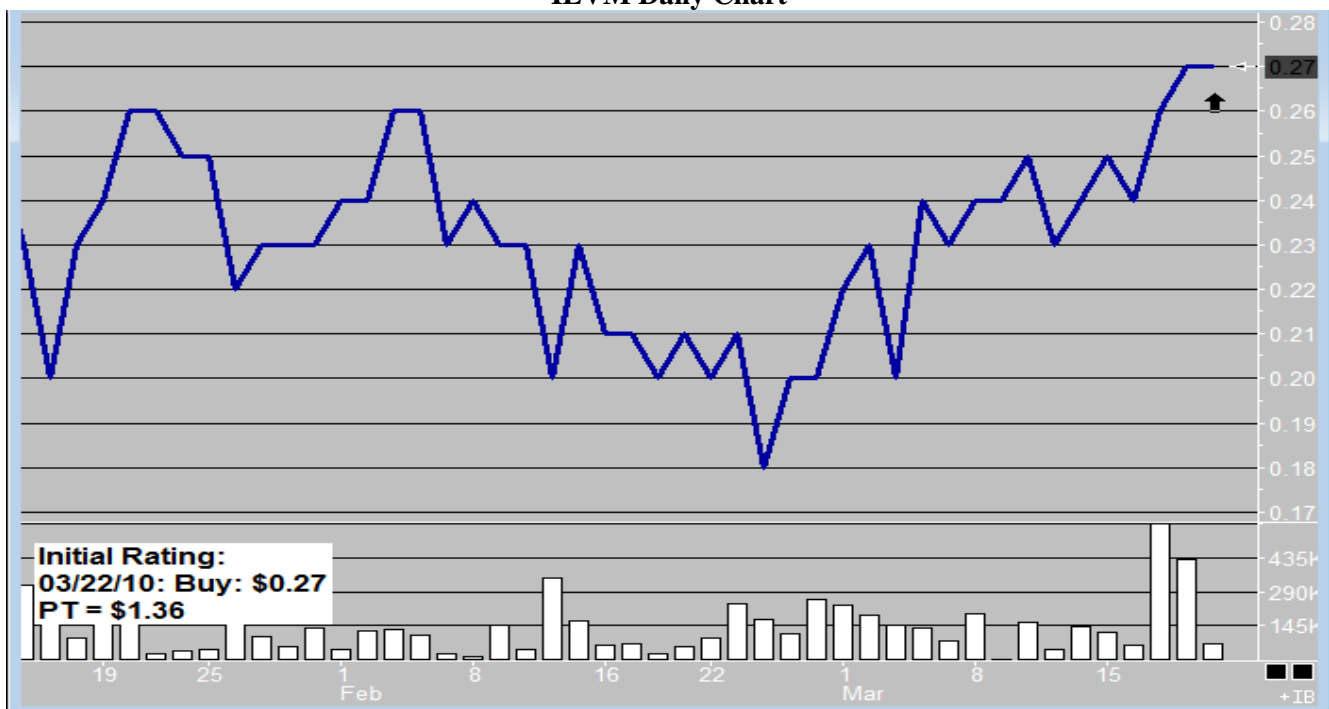
Given our expectation of roughly-30-fold revenue growth for 2010, doubling again of revenue for 2011, we believe investors will be willing to begin to "pay-up" to own the shares.

We could envision rational investors paying as much as 8x-to-10x sales, 14x-to-18x EBITDA and 16x-to-20x EPS. Applying these metrics to our mid-point 2010-2011 projections:

	Per Shr	Rate	Future Value
Mid-Pt 2010-11 EPS	\$ 0.08	18 x	\$ 1.35
Mid-Pt 2010-11 EBITDA	\$ 0.08	16 x	\$ 1.35
Mid-Pt 2010-11 Revs	\$ 0.15	9 x	\$ 1.37
<b>Average</b>			<b><u>\$ 1.36</u></b>

Consequently, we are establishing a 12-month price target of \$1.36 (+406%) on IEVM shares and recommend aggressive purchase for accounts seeking speculative, capital-appreciation potential.

IEVM Daily Chart



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**Integrated Environmental Technologies, Ltd.**

Balance Sheet

<b>Current Assets:</b>	<b>12/31/2008</b>	<b>9/30/2009</b>	<b>12/31/2009E</b>	<b>12/31/2010E</b>	<b>12/31/2011E</b>
Cash	33,357	327,523	31,882	2,926,608	13,358,103
Accounts receivable	22,505	73,041	175,000	1,800,000	3,420,000
Inventory	133,043	139,864	142,000	700,000	850,000
Prepaid expenses	36,508	6,889	7,000	55,000	104,500
<b>Total current assets</b>	<b>225,413</b>	<b>547,317</b>	<b>355,882</b>	<b>5,481,608</b>	<b>17,732,603</b>
Equipment	13,045	13,045	13,045	30,000	37,000
Accumulated depreciation	(10,523)	(11,390)	(11,679)	(13,000)	(15,000)
<b>Total building and equipment</b>	<b>2,522</b>	<b>1,655</b>	<b>1,366</b>	<b>17,000</b>	<b>22,000</b>
<b>Total Assets</b>	<b>227,935</b>	<b>548,972</b>	<b>357,248</b>	<b>5,498,608</b>	<b>17,754,603</b>
<b>Liabilities and Shareholders' Equity (Deficit)</b>					
<b>Current liabilities:</b>					
Accounts payable	172,085	155,452	169,000	2,100,000	3,750,000
Accrued expenses	123,750	173,346	180,000	225,000	300,000
Notes payable	98,300	938,300	1,000,000	-	-
Convertible notes	501,000	492,000	492,000	-	-
<b>Total current liabilities</b>	<b>895,135</b>	<b>1,759,098</b>	<b>1,841,000</b>	<b>2,325,000</b>	<b>4,050,000</b>
<b>Shareholders' Equity (Deficit)</b>					
Common stock 200,000,000 shares authorized					
par value \$.001, 84,168,467 and 79,058,467 shares issued					
and outstanding at September 30, 2009 and December 31, 2008					
	79,058	84,168	84,600	94,000	106,000
Stock bought not issued, 40,000 shares at September 30, 2009	-	40	40	-	-
Paid-in capital	7,786,789	8,673,858	9,100,000	9,600,000	10,500,000
Retained earnings (deficit)	(8,533,047)	(9,968,192)	(10,668,392)	(6,520,392)	3,098,603
<b>Total shareholders' equity (deficit)</b>	<b>(667,200)</b>	<b>(1,210,126)</b>	<b>(1,483,752)</b>	<b>3,173,608</b>	<b>13,704,603</b>
<b>Total liabilities and shareholders' equity (deficit)</b>	<b>227,935</b>	<b>548,972</b>	<b>357,248</b>	<b>5,498,608</b>	<b>17,754,603</b>
<b>Metrics</b>					
Quick ratio	0.06	0.23	0.11	2.03	4.14
Current Ratio	0.25	0.31	0.19	2.36	4.38
Days Sales in AR	15.90	91.61	67.02	61.28	61.28
Days Sales in Inventory	89.71	509.48	309.59	62.22	62.16
Interest coverage	NM	NM	NM	81.24	NM

Source: Company SEC documents and CFR estimates

**Integrated Environmental Technologies, Ltd.**

Income Statement - Historical and Projected

	<b>FY2007</b>	<b>FY2008</b>	<b>1Q2009</b>	<b>2Q2009</b>	<b>3Q2009</b>	<b>4Q2009E</b>	<b>FY2009E</b>	<b>1Q2010E</b>	<b>2Q2010E</b>	<b>3Q2010E</b>	<b>4Q2010E</b>	<b>FY2010E</b>	<b>FY2011E</b>
	Full Year	Full Year	03/31/09	06/30/09	09/30/09	12/31/09	Full Year	03/31/10	06/30/10	09/30/10	12/31/10	Full Year	Full Year
Sales	\$ 411,179	\$ 509,673	\$ 34,953	\$ 783	\$ 71,758	\$ 235,000	\$ 342,494	\$ 875,000	\$ 2,100,000	\$ 3,200,000	\$ 4,400,000	\$ 10,575,000	\$ 20,092,500
Cost of sales	164,897	290,738	16,882	530	24,707	123,000	165,119	350,000	820,000	1,210,000	1,670,000	4,050,000	4,922,663
Gross profit	246,282	218,935	18,071	253	47,051	112,000	177,375	525,000	1,280,000	1,990,000	2,730,000	6,525,000	15,169,838
<b>Gross Margin %</b>	59.9%	43.0%	51.7%	32.3%	65.6%	47.7%	51.8%	60.0%	61.0%	62.2%	62.0%	61.7%	75.5%
Prof'l and admin. fees	581,948	306,860	82,183	79,910	103,508	185,000	450,601	135,000	135,000	135,000	135,000	540,000	650,000
Salary	748,911	672,951	162,958	133,904	158,126	225,000	679,988	150,000	125,000	150,000	170,000	595,000	773,500
Depr. and amort.	2,280	1,971	392	1,223	(748)	-	867	-	-	-	-	-	-
Research & Dev.	-	-	-	-	-	-	-	200,000	50,000	50,000	50,000	350,000	455,000
Office & misc. expense	485,461	439,260	98,919	84,384	99,065	160,000	442,368	115,000	135,000	142,000	160,000	552,000	717,600
Bad debt expense	-	37,841	30	-	1,200	1,200	2,430	1,500	2,500	7,000	9,000	20,000	30,000
Total ops. expenses	1,818,600	1,458,883	344,482	299,421	361,151	571,200	1,576,254	601,500	447,500	484,000	524,000	2,057,000	2,626,100
<b>Total Ops Exp. % Sales</b>	<b>442.3%</b>	<b>286.2%</b>	<b>985.6%</b>	<b>38240.2%</b>	<b>503.3%</b>	<b>243.1%</b>	<b>460.2%</b>	<b>68.7%</b>	<b>21.3%</b>	<b>15.1%</b>	<b>11.9%</b>	<b>19.5%</b>	<b>13.1%</b>
Inc. (Loss) from ops.	(1,572,318)	(1,239,948)	(326,411)	(299,168)	(314,100)	(459,200)	(1,398,879)	(76,500)	832,500	1,506,000	2,206,000	4,468,000	12,543,738
<b>Oper. Mgn. %</b>	<b>-382.4%</b>	<b>-243.3%</b>	<b>-933.9%</b>	<b>-38207.9%</b>	<b>-437.7%</b>	<b>-195.4%</b>	<b>-408.4%</b>	<b>-8.7%</b>	<b>39.6%</b>	<b>47.1%</b>	<b>50.1%</b>	<b>42.3%</b>	<b>62.4%</b>
Finance fees	-	-	(60,489)	(118,002)	(198,728)	(205,000)	(582,219)	(150,000)	(90,000)	(25,000)	-	(265,000)	-
Interest expense	(377,864)	(308,444)	(24,359)	(39,082)	(34,806)	(36,000)	(134,247)	(30,000)	(25,000)	-	-	(55,000)	-
Total other inc. (exp.)	(377,864)	(308,444)	(84,848)	(157,084)	(233,534)	(241,000)	(716,466)	(180,000)	(115,000)	(25,000)	-	(320,000)	-
Provision for taxes	-	-	-	-	-	-	-	-	-	-	-	-	2,924,742
<b>Tax rate %</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>23.3%</b>
Net loss	\$(1,950,182)	\$(1,548,392)	\$(411,259)	\$(456,252)	\$(547,634)	\$(700,200)	\$(2,115,345)	\$(256,500)	\$ 717,500	\$ 1,481,000	\$ 2,206,000	\$ 4,148,000	\$ 9,618,995
<b>Net Margin %</b>	<b>-474.3%</b>	<b>-303.8%</b>	<b>-1176.6%</b>	<b>-58269.7%</b>	<b>-763.2%</b>	<b>-298.0%</b>	<b>-617.6%</b>	<b>-29.3%</b>	<b>34.2%</b>	<b>46.3%</b>	<b>50.1%</b>	<b>39.2%</b>	<b>47.9%</b>
Net EPS (LPS) FD	\$ (0.03)	\$ (0.02)	\$ (0.01)	\$ (0.01)	\$ (0.01)	\$ (0.01)	\$ (0.03)	\$ (0.00)	\$ 0.01	\$ 0.02	\$ 0.02	\$ 0.05	\$ 0.10
Wtd. Avg. shs. Outst.	57,452,604	72,736,922	79,058,467	83,664,511	83,198,158	84,600,000	82,630,284	86,000,000	89,000,000	92,000,000	95,000,000	90,500,000	101,000,000
Revs - YTY % Chg	NA	24%	-86%	-42%	-54%	112%	-33%	2403%	268099%	4359%	1772%	2988%	90%
Op Inc - YTY % Chg	NA	-21%	42%	-3%	33%	-2%	13%	-77%	-378%	-579%	-580%	-419%	181%
Net Inc. - YTY % Chg	NA	-21%	39%	15%	65%	34%	37%	-38%	-257%	-370%	-415%	-296%	132%

Sources: Company SEC documents and CFR estimates

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