

From: mf@wildcatteres.com
To: rmann@slo.state.nm.us; [James Fox](#)
Cc: scs@wildcatteros.com
Subject: Details
Date: Monday, June 25, 2018 8:03:57 AM
Attachments: degraded compound list.pdf
Lil Mo .pdf

Good Morning All;

Wildcatter proposes to use our proprietary blend of microbes which contains over 100 species of algae, fungi, archae and bacteria, both aerobic and anaerobic. In the presence of water and food, they go bezerk and reproduce very rapidly, feeding on many of the elements and compounds we want to remove from the soil. I have attached a list of the degraded compounds list which is not comprehensive as we add to it monthly. We have successfully completed similar produced water spills for OWL in and around the Midland/Odessa area and I believe that Phillip Sanders would be a good contact to support our claims.

In the mixture we use, there are microbes, a small amount of enzymatic surfactant that breaks down any remaining hydrocarbons so that the bugs can digest it and humate/humic acid that strips the cations from the salt, breaking them down in place. To tie up the "free" chlorides left, we will use gypsum (calcium sulfate), a simple form of fertilizer, that will bond to the chlorides and form an *insoluble* calcium chloride that will remain in the soil until plant roots assimilate it by osmosis. This depends on the type of plant and their concentration, but it is an entirely natural process. What we don't know is how much of the free chlorides will be tied up and/or encapsulated by our microbial activity. This is also a natural process but difficult to measure directly.

To confirm that this happens, we will be using sensors connected to our Lil'Mo connection point (see attached) to monitor soil conditions *in-situ* in **real time**. This tells us what the soil moisture is and when and how much to water. It also tells us pH, conductivity (salinity) and temperature. These will be placed at different depths so that we can see what is going on as a function of depth. Soil porosity and permeability play a big role is how quickly things move downward (or not) so we can estimate how long it will take to completely remediate to depth. Additionally, if during the course of remediation we all see something that we don't like or something unforeseen, like a rise or drop in pH, we can change our chemistry, processes or both before we end up with undesired results. We have access to at least one salt blocker and can call that in if we need it. So far, we have not had to employ that resource.

Please contact me with any additional questions and look forward to your response.

Thank you and regards,

Mark Frenzel

Sr. VP Business Development

Wildcatter Energy Services

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Styrene process tars	bis(2chloroethylhexyl) phthalate
Methacrylate process tars	dichlorobenzene isomers
Methyl Ethyl ketone	Di-n-butyl phthalates
Oxolane	Di-n-octyl phthalates
Benzene	Flouranthene
Carbon tetrachloride	Flourene
Toluene	Hexachlorobenzene
Ethylbenzene	Naphthalene
Styrene	Phenanthrene
O,m,p, Xylene	Pyrene
Phenol	Dibenzofuran
Methylstyrene isomers	Methylnaphthalene isomers
Dimethyl benzenemethanol	cyclohexene-1-yl-benzene
Dimethyl phenol isomers	Biphenyl
Ethyl methylphenol	Acetone
Chlorobenzene	Methyl pentanone isomers
Chloroform	Methyl propano
Dichloroethane isomers	Cyclohexane
Methylene chloride	Methyl cyclohexane
Methylene bromide	Benzenamine
Dichloroethylene isomers	Ethyl Cyclohexane
Trichloroethylene isomers	Methylcyclopentane
Vinyl Chloride	PCB
Tetrachloroethylene	Cresol
Anthracene	Cyanide
Benzo (a) anthracene	Oil and grease
bis(2 chloroethyl) ether	Produced Water (Salt)

▶ Lil Mo Communication Platform

Theft and Criminal Activities are on the rise, with that, the need for a rapid deployment system is highly essential to observing and protecting your assets.

Kwahu Innovative Systems introduces its new and highly mobile communications platform known as the Lil Mo Series. This communication platform hosts a variety of features that makes it robust and expandable to fit your industries needs.

The Lil Mo Series can be used in a variety of ways. Use it to collect well site data, communicate and transmit SCADA information. Use it to send audible and visual alerts for H2S Emergencies. Use it to monitor job sites for HSE and Environmental purposes. Use it as a surveillance platform to protect and monitor your assets in the field.

Remotely monitor and access the system via the World Wide Web from anywhere in the world where you have internet capability. Operate the system via the URL link, or by a mobile application from your cell phone or smartpad.

SOLAR POWERED WITH CHARGE CONTROLLER AND BATTERY PACK

3G / 4G / SATTELITE CONNECTION

802.11 A/B/G/N WIFI

22' TELESCOPIC MAST / 120° ROTATABLE

HIGH DEFINITION PAN TILT ZOOM CAMERAS

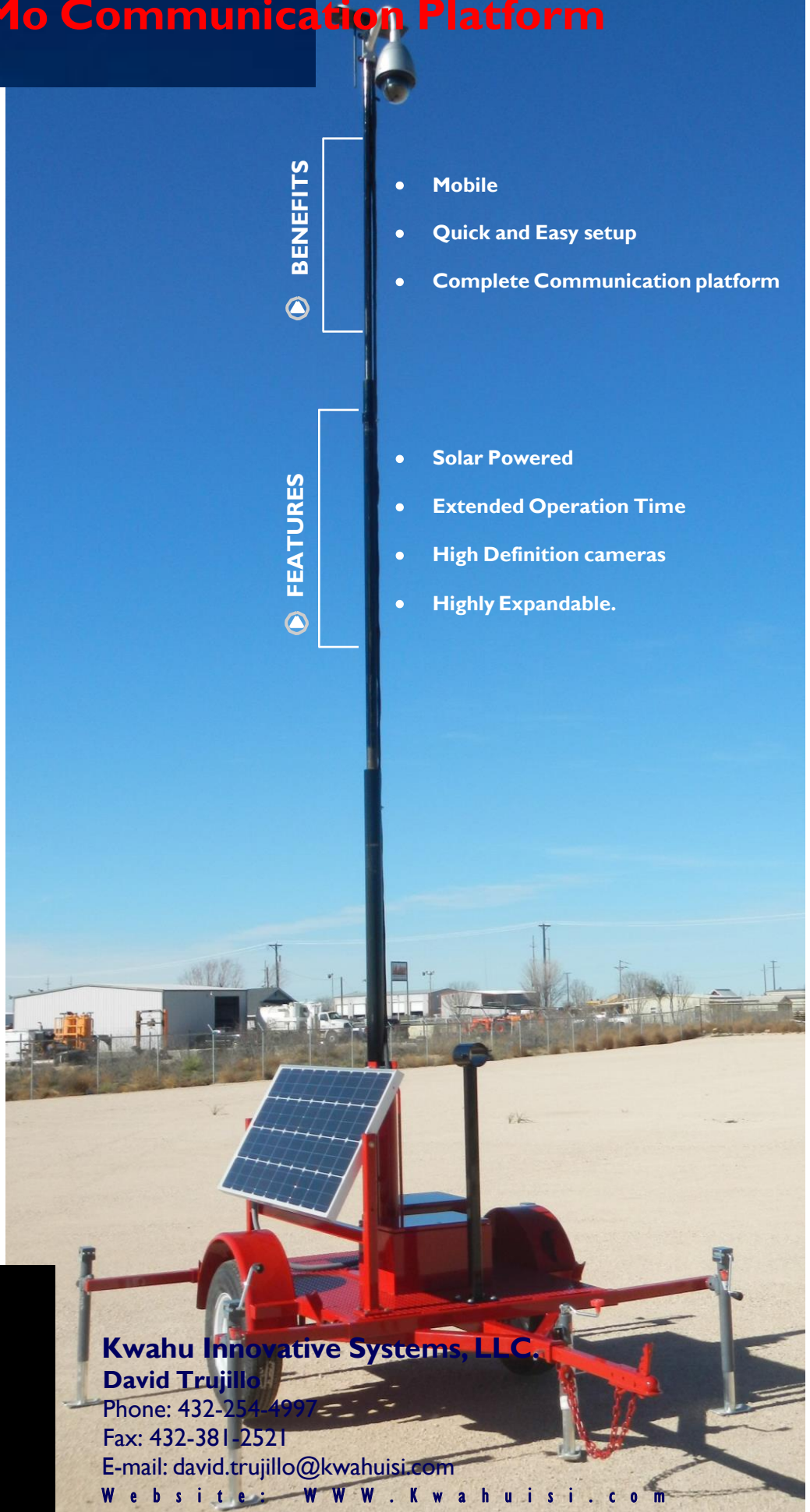
MICROSOFT WINDOWS BASE NVR

▶ BENEFITS

- Mobile
- Quick and Easy setup
- Complete Communication platform

▶ FEATURES

- Solar Powered
- Extended Operation Time
- High Definition cameras
- Highly Expandable.



Kwahu Innovative Systems, LLC.

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LIL Mo COMMUNICATION PLATFORM

FROM **KWAHU INNOVATIVE SYSTEMS**

LIL Mo SPECIFICATIONS

TRAILER

- ◆ TRAVEL: 61" BY 132" X 63" (W x L x H)
- ◆ DEPLOYED 109" x 85" x 264" (W x L x H)
- ◆ GROSS WEIGHT RATING: 1500 LBS.

TOWER

- ◆ TELESCOPING STYLE MAST
- ◆ HEIGHT: 22' TELESCOPING MAST
- ◆ CONTROL: 320° ROTATION

SUPPORT

- ◆ 4 JACK STANDS WITH OUTRIGGERS

SOLAR POWER

- ◆ 150 WATT SOLAR PACKAGE

BATTERY POWER

- ◆ 440 AMP-HOUR AGM BATTERY PACK

SHORE POWER (OPTIONAL)

- ◆ POWER SOURCE: 120 VAC 1375-WATT MAX

WIND GENERATOR (OPTIONAL)

- ◆ 400-WATT PACKAGE

COMMUNICATIONS

- ◆ RJ-45 CAT5E ETHERNET
- ◆ WI-FI 802.11 A/B/G/N
- ◆ 3G / 4G / LTE CELLULAR
- ◆ SATELLITE

CAMERAS

- ◆ IP FIXED, PTZ DOME, HIGH DEFINITION (720P / 1080P)
- ◆ INFRARED FIXED AND PTZ DOME
- ◆ THERMAL FIXED AND PTZ DOME

LIGHTING

- ◆ WHITE LIGHT ILLUMINATORS
- ◆ IR ILLUMINATORS

RECORDING

- ◆ WINDOWS 7 PROFESSIONAL BASED
- ◆ EDGE RECORDERS
- ◆ NVR SOFTWARE

ALERTS

- ◆ TWO-WAY AUDIO
- ◆ STROBE LIGHTS
- ◆ SIRENS
- ◆ HORNS



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