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9<sup>th</sup> International Forum on Energy for Sustainable Development

Benghazi

# Protection of Critical Energy Infrastructure: Mitigating Security Risks to Critical Energy Infrastructure

# Lessons From Managing a Private Oil & Gas Contractor in Post-Revolution Libya

Kiev 12<sup>th</sup> - 14<sup>th</sup> November 2018

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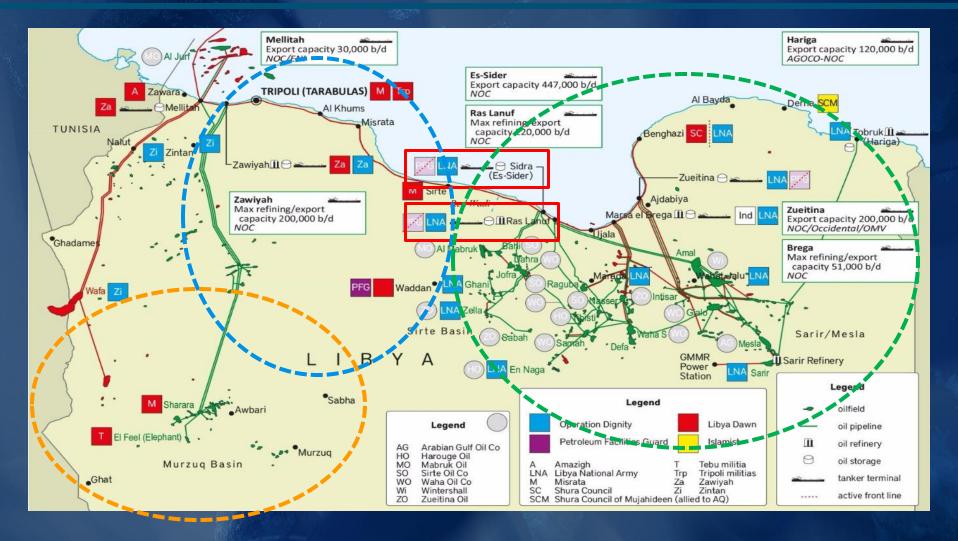






Al Kufrah

#### Scene Setter: Critical Infrastructure in Libya







#### What Happens If We Are Unable to Protect Them







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 Because these are the main Oil export terminals and more than 64% of state budget comes from Oil export (2018 Budget)





#### What Happens If We Are Unable to Protect Them

- Severe national / trans-border pollution and adverse environmental impact
- ~USD25 Millions "gone in smoke" for each full storage tank destroyed: opportunity cost
- Increased appeal of available workforce to more lucrative and cash generating activities such as militia and illegal migration business





### **Our Management Strategy In Such Volatile Environment**

Understanding, segmenting & quantifying Risks A - Beyond the control of Management

**B** - Under the control of Management

#### RISKS TO CRITICAL ASSETS = RISKS TO PERSONNEL + INFRASTRUCTURE





### **Our Management Strategy In Such Volatile Environment**

Understanding, segmenting & quantifying Risks

- A Beyond the control of Management
  - Mitigate or Minimize exposure: *e.g.*
  - Change routes,
  - shut down operations or completely evacuate sites







### **Our Management Strategy In Such Volatile Environment**

Understanding, segmenting & quantifying Risks

#### <u> A - Beyond the control of Management</u>

**B** - Under the control of Management

#### Human Resources: MOST VALUABLE ASSET

- Regional-mix in the work force transcending local conflicts between the 3 main regions
- Strong alignment of incentives with company objectives

Mutual protection and anticipation of adverse circumstances by employees & vendors

#### Local Vendors: KEY STAKEHOLDERS

- Sourcing services from local communities in priority: e.g. transportation, security and equipment rental
- Providing training to develop new
  competencies and expand the spectrum of services: e.g. mechanics, welders, etc.





### COMPANY HQ IN TRIPOLI IN AFTER TRIPOLI LIBERATION IN 2011

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# DO NOT BUILD CRITICAL INFRASTRUCTURE NEAR MILITARY INSTALLATIONS !!!

#### Thank you for you attention

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