



# **2013 Perforating Safety Forum**

**Shell West Hollow Technology  
Center  
Houston, TX**

**May 9, 2013**

# Agenda

- 08:00 – 08:25  
False Safety briefing/moment – Introduction of committee and program – K
- 08:25 – 08:45  
Keynote address – Peter Brett, Shell Exploration & Production
- 08:45 – 09:45  
Ference Update on the current RP-67 revision Panel: J Barker (lead), D Ayre, B
  - Detonators & Delays, Firing Panels
  - Interrupts
  - Tractors
  - Temperature Management
  - Firing Heads on Bottom of Guns
- 09:45 – 10:00  
Break
- 10:00 – 11:00  
Update on the current RP-67 revision - Continued
  - Coil Tubing Jobs
  - Security / Regulatory
  - Pipe Recovery
  - Surface Pressure Control Equipment
  - Special Categories of Explosive Devices
  - Personnel Training and RP-67 Compliance Audits
- 11:00 – 12:15  
Lunch

# Agenda

- 12:15 – 13:45  
industry  
**Oilfield Explosives Process Safety alignment – Review current practices.**
  - Panel: B Ference (lead), P Kapur, H Ibrahim
  
- 13:45 – 14:00  
**Break**
  
- 14:00 – 15:30  
**Review of recent explosive / security incidents and near-misses**
  - Panel: K Folse (lead), J Brooks, D Ayre
  
- 15:30 – 16:30  
maintained  
incidents and near  
**Discussion of having a centrally located, easily available and database of oilfield explosive safety/security misses.**
  - Panel: JW Segura (lead), K Folse, M Bell, F Preiss
  
- 16:30 – 16:45  
**Forum close-out – K Folse & Committee**

## Perforating Safety Forum Committee

- Kent Folse Shell
- David Ayre BP
- Bob Ference SLB
- James Barker Halliburton
- Jim Gilliat Baker Hughes
- Stephen Zuklic Baker Hughes
- John “JW” Segura Weatherford
- Parul Kapur Shell
- Mark Brinsden Shell

# In Memoriam



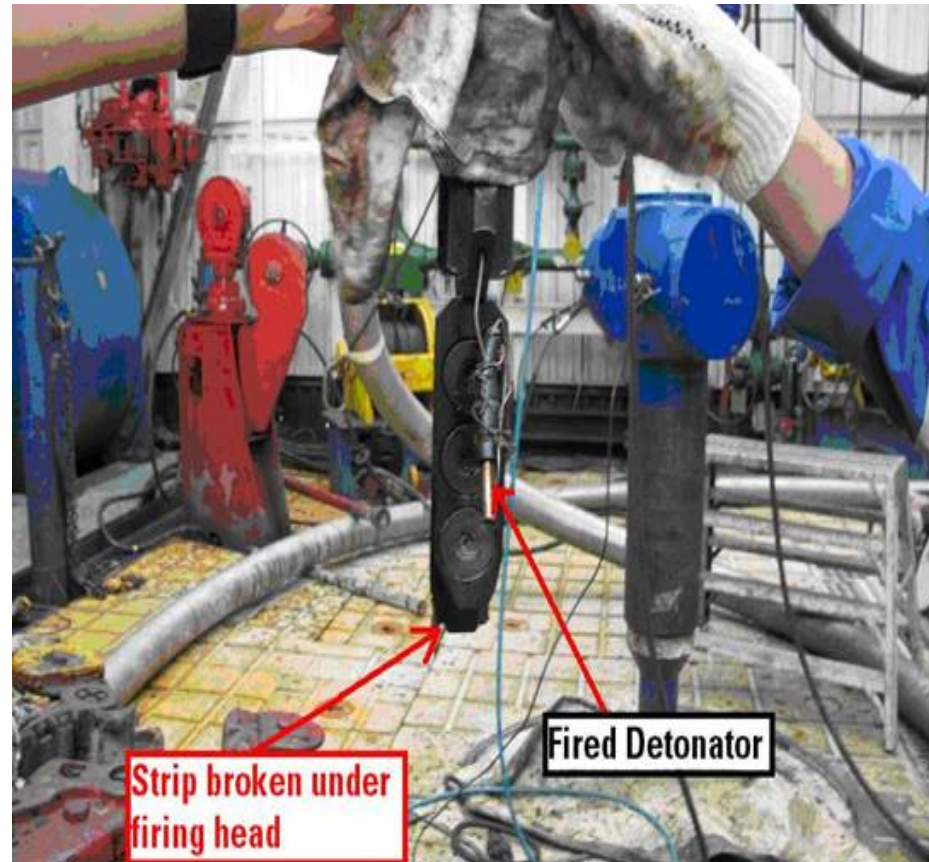
**Steve Barnes**



**Roy Vann**

## Safety Moment – Near Miss

- DST Kazakhstan w/ TCP
- Through Tubing Perf w/ Capsule Charges
- 3.5 m gun difficulty RIH, 45 min's working line to drift STT
- Log on Depth, Fire Gun – good indication on detonator
- POOH – Strip Broken/Det fired
- No Change Flow Rates, Re-Perf
- Fire 3.5 m Gun, No Indication
- POOH Strip Broken, Det LIH
- RIH 5 m Gun Perforate
- Finish DST and R/D

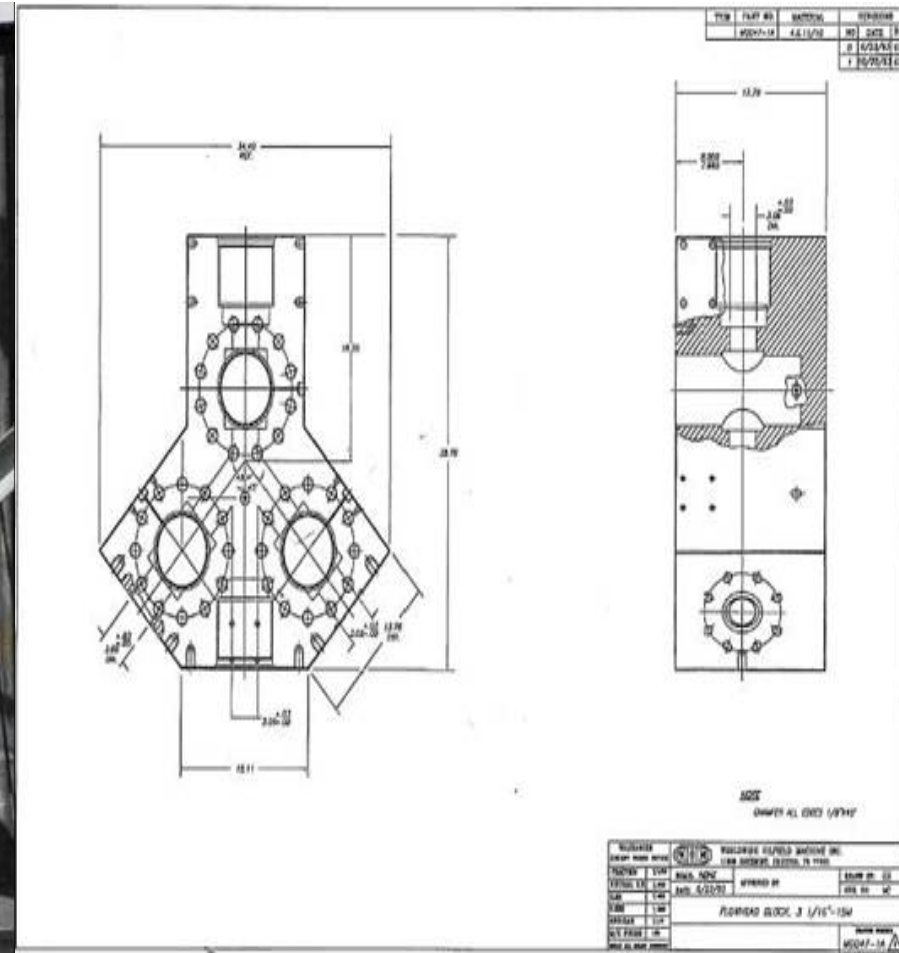


## Safety Moment – What Happened?



**Co-Flex was Lifted Up to Locate 2<sup>nd</sup> Gun on Rig, Not Found!**

## Safety Moment – What Happened?



2<sup>nd</sup> Gun LIH – Subsequently Found at Service Contractor Base  
Gun Transported from Rig to Shore Base, Trucked to Contractor Base  
with Detonator Attached to Gun



# Safety Moment – We Got Lucky?

- **3 sources of energy that can ignite a detonator:**
  - electrical (stray voltages), Radio Frequency (RF sources) and mechanical (shock)
- **Potential for Initiation Evaluated**
  - Mechanical/Shock
- **Test Tree Design and Strip Gun Conveyance?**
- **Close Wing/Kill Line Valves if Shut-In Condition**
- **Report Near Misses and Communicate Learning's**

		Potential Risk				
		Very Low	Low	Medium	High	Very High
-25 to -20	<b>Extreme</b>	Evacuate the zone and area/country				
-16	<b>High</b>	Do not take this risk				
-9 to -5	<b>Medium</b>	Demonstrate ALARP before proceeding				
-4 to -2	<b>Low</b>	Proceed carefully, with continuous improvement				
-1	<b>Insignificant</b>	Safe to proceed				
MITIGATION		LIKELIHOOD				
Control Measures		1	2	3	4	5
PREVENTION						
Light	-1	-1	-2	-3	-4	-5
Serious	-2	-2	-4	-6	-8	-10
Major	-3	-3	-6	-9	-12	-15
Catastrophic	-4	-4	-8	-12	-16	-20
Multi Catastrophic	-5	-5	-10	-15	-20	-25



# **Keynote Speaker Introduction & Ground Rules**

