



BSEE Gulf of Mexico OCS Region Update

Lars Herbst, Regional Director

Agenda



- **Regulatory Update**
- **Gulf of Mexico Activity**
- **Focus on Loss of Well Control**
- **Questions?**

Regulatory Update



- Published proposed rulemaking
 - *Oil and Gas Production Safety Systems – Subpart H*
 - Published August 22, 2013, comment period was extended and closed December 5, 2013
 - Includes: safety and pollution prevention equipment lifecycle analysis, production safety systems, subsurface safety devices, and safety device testing
- In preparation, due out mid-2014
 - *Blowout Prevention Systems*
 - *Arctic (joint with BOEM)*

Upcoming Proposed Rules



- Suspensions of Production and Operations
- Natural Gas Fluids Measurement
- Oil Spill Mechanical Recovery

Drilling Permits

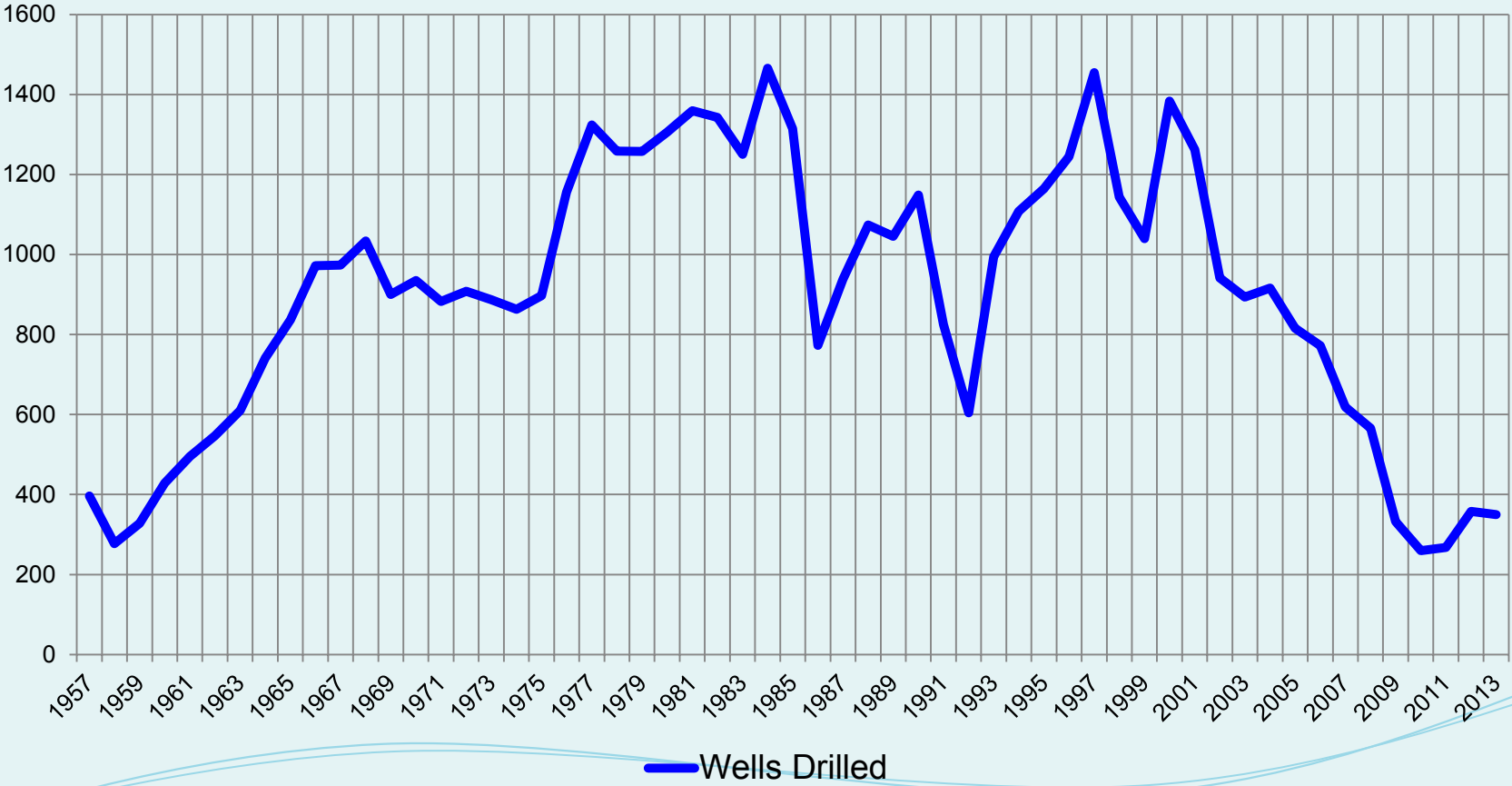


Year	Shallow Water < 500 ft.			Deepwater > 500 ft.			Total Approved
	New Well	Bypass	Sidetrack	New Well	Bypass	Sidetrack	
2013	72	51	120	57	34	23	357
2012	67	42	108	112	25	23	377
2011	71	40	87	38	19	22	277
2010	72	32	92	32	19	23	270
2009	95	28	70	76	26	46	341

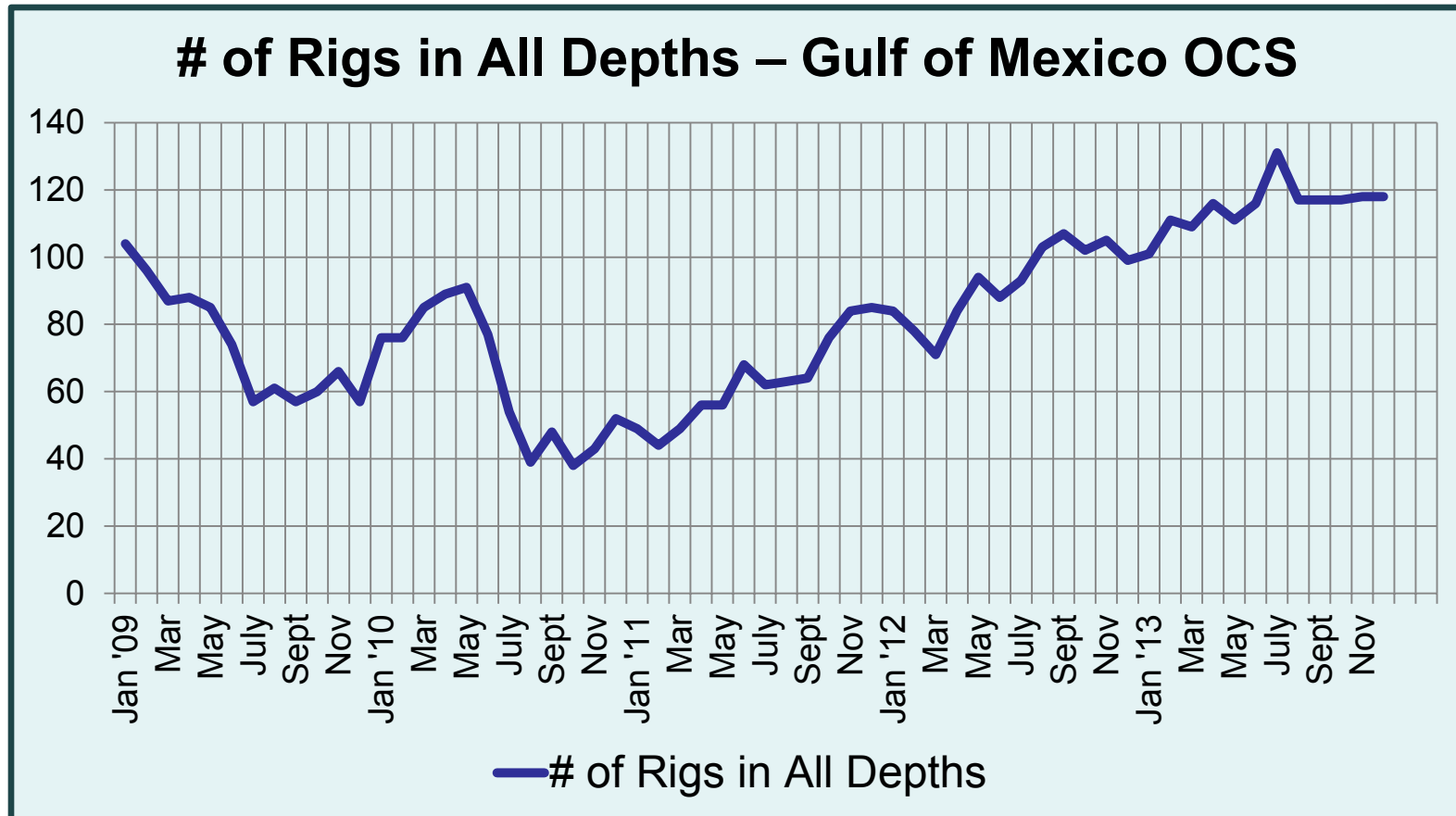
GOM Wells



Gulf of Mexico OCS Region Total Wells Drilled by Year



Rig Activity All Water Depths



Drilling Rigs Working in U.S. Gulf of Mexico



Platform Rig = 24



Semi-submersible = 20



Jack-up rig = 25



Drillship = 19

U.S. Gulf of Mexico New Deepwater Rigs



Deepwater Rig & Type	Operator	Quarter Expected
Sadrill West Auriga drillship	BP	3rd Qtr. 2013
Noble Don Taylor drillship	Shell	
Sadrill West Vela – drillship	BP	4th Qtr. 2013
Stena IceMAX – drillship	Shell	1st Qtr. 2014
Diamond Offshore Ocean Onyx – rebuilt semi	Apache	
Atwood Advantage - drillship	Noble Energy	
Maersk Viking – drillship	ExxonMobil	
Sevan Louisiana – cylinder hull	LLOG Exploration	
Diamond Offshore Ocean Blackhawk - drillship	Anadarko	2nd Qtr 2014
Noble Bob Douglas - drillship	Anadarko	
Maersk Valiant - drillship	ConocoPhillips	
Pacific Sharav – drillship	Chevron	3rd Qtr. 2014
Diamond Offshore Ocean BlackHornet – drillship	Anadarko	
Transocean Deepwater Invictus – drillship	BHP Billiton	
Noble Sam Croft – drill ship	Freeport McMoran	
Rowan Resolute – drillship	Anadarko	
Sadrill West Neptune – drillship	LLOG Exploration	4th Qtr 2014
Rowan Reliance - drillship	Cobalt Intl. Energy	1st Qtr 2015
Noble Tom Madden - drillship	Freeport McMoran	
ENSCO DS-90 – drillship	Conoco Phillips	3rd Qtr 2015

Deepwater Appraisal Activity



Deepwater Prospect	Operator	Map Area
North Platte	Cobalt Intl. Energy	Garden Banks 959
Stampede(Pony)*Sanction '14, 1 st prod.–'16	Hess Corp	Green Canyon 468
Stampede(Knotty Head)*Sanction '14, 1 st prod.–'16	Hess Corp	Green Canyon 512
Big Dog (Mad Dog B)	BP	Green Canyon 825
Appomattox	Shell	Mississippi Canyon 806
Vito	Shell	Mississippi Canyon 984
Gunflint	Noble Energy	Mississippi Canyon 948
Hadrian North	ExxonMobil	Keathley Canyon 918
Buckskin/Moccasin	Chevron	Keathley Canyon 872/736
Kaskida/Tiber/Gila	BP	Keathley Canyon 292/102/93
Shenandoah	Anadarko	Walker Ridge 52
Coronada	Chevron	Walker Ridge 98

Production Facilities



**Shallow Water
Production Facilities**
(less than 500 ft)

2647



**Deepwater
Production Facilities**
(greater than 500 ft)

73



New Gulf of Mexico Deepwater Projects

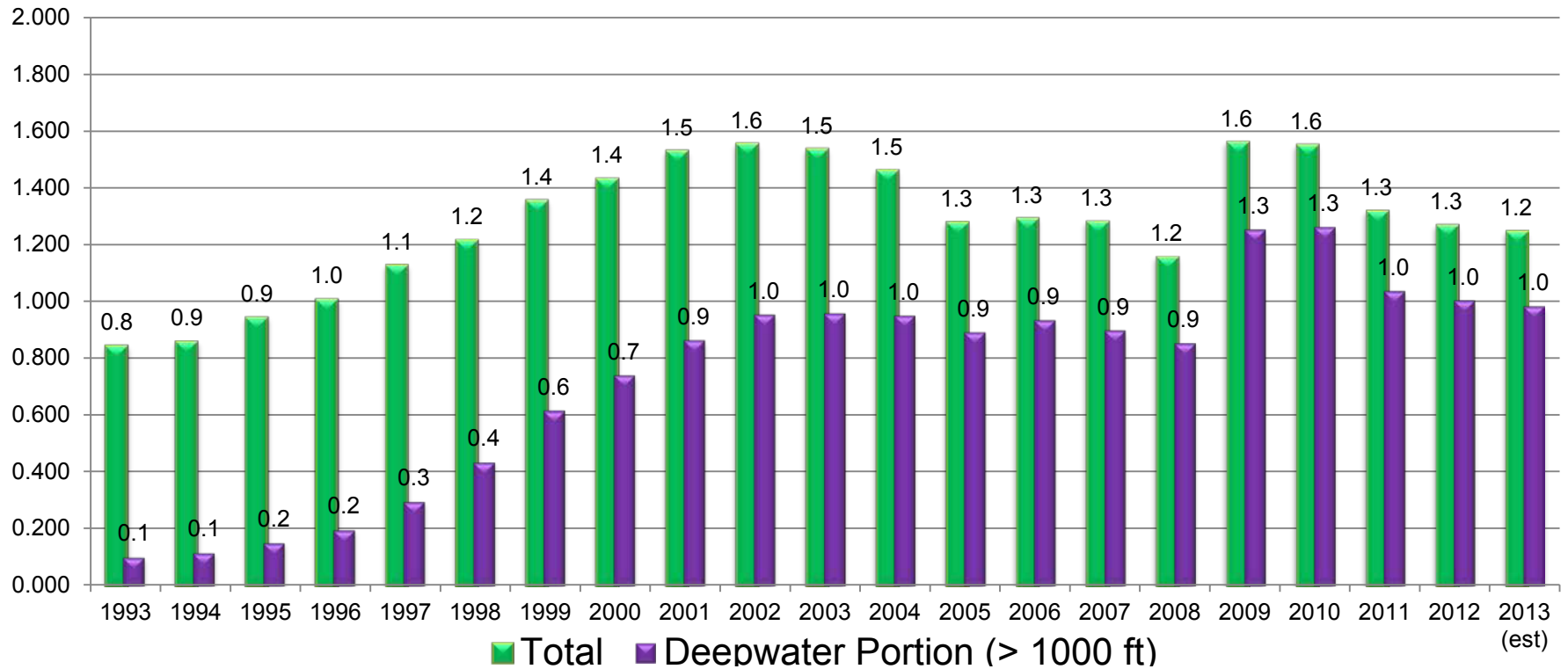


Deepwater Project	Operator	1 st Production Expected
Olympus TLP (Mars B) {**subsea} Mississippi Canyon 806	Shell	Started production 1st Qtr. 2014
Jack – St. Malo Walker Ridge 718	Chevron	2014
Big Foot Walker Ridge 29	Chevron	2014
Lucius (oil/gas)/S. Hadrian (gas) Keathley Canyon 875	Anadarko/ ExxonMobil	2014
Tubular Bells Mississippi Canyon 725	Hess	2014
Delta House Mississippi Canyon 254	LLOG Exploration	2015
Olympus TLP (Mars B) {**platform} Mississippi Canyon 806	Shell	2015
Heidelberg Green Canyon 860	Anadarko	2016
Stones (**2 nd FPSO in GOM) Walker Ridge 508	Shell	2016

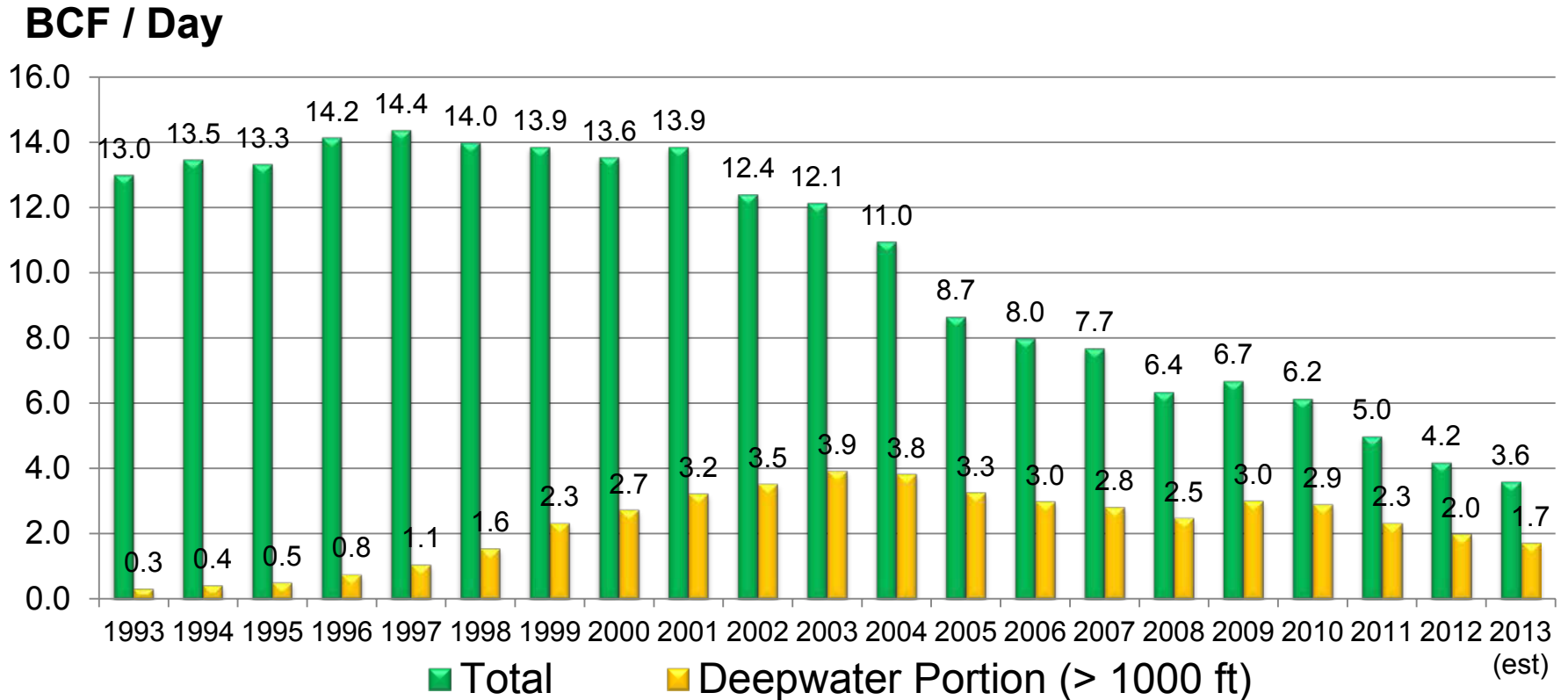
Gulf of Mexico OCS Oil Production Total vs. Deepwater



MM Bbls /Day



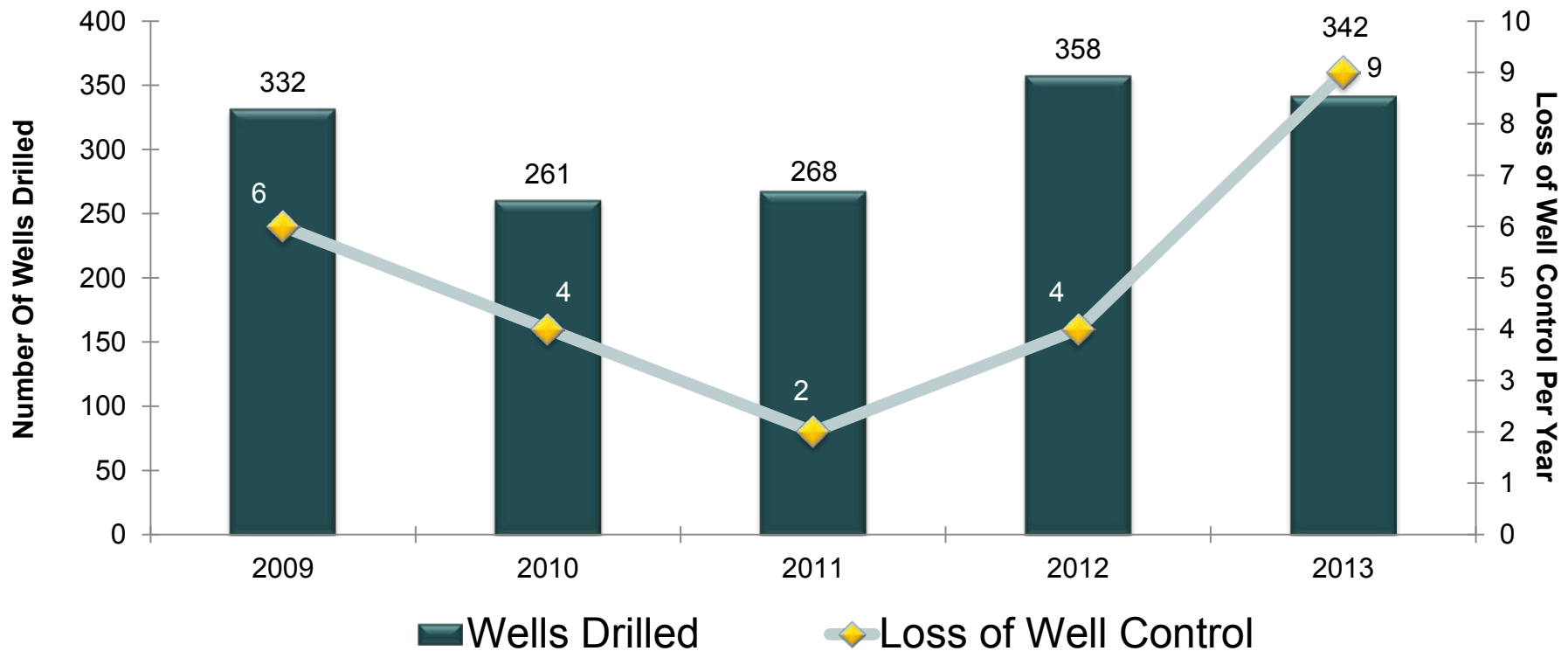
Gulf of Mexico OCS Gas Production Total vs. Deepwater



Loss of Well Control in GOM 2009-2013



1.6015% = Percentage of Loss of Well Control Per Well Drilled from 2009-2013



ST 220 A / Hercules 265

Walter Oil & Gas - 23 July 2013, LWC, Surface



- Water Depth – 154 feet
- Distance to Shore – 55 miles
- Days to complete relief well – 74
- Product – Gas
- Development Well
- LWC Occurred – POOH with TCP gun

SS 225 B

ERT/ Talos - 7 July 2013, LWC, Surface



- Water Depth – 146 feet
- Distance to Shore – 65 miles
- Product – Gas and condensate
- Development Well
- LWC Occurred-
Abandonment procedure

MP 295 #1 / ENSCO 87



Apache - 5 February 2013, LWC, Underground



- Water Depth – 218 feet
- Distance to Shore – 20 miles
- Product - Gas
- Exploratory Well
- LWC Occurred- Kick from inclusion in salt

VR 356/ Rowan Louisiana

En Ven Energy Ventures -30 January 2014

LWC, Shallow Gas Diversion

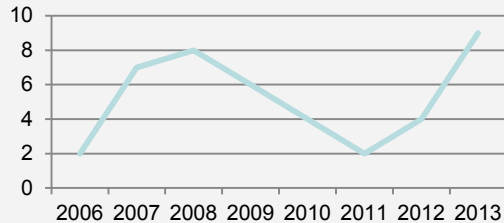


- Water Depth – 262 feet
- Distance to Shore- 97 miles
- Product – Gas
- Development Well
- LWC Occurred – POOH for wiper trip

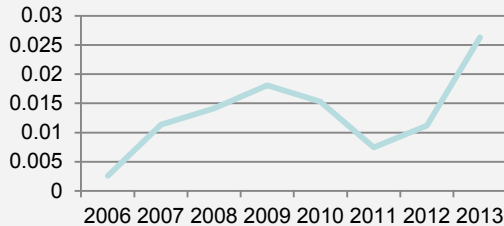
Reporting Requirements Loss of Well Control



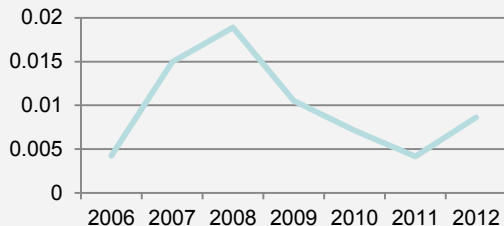
GOM Loss of Well Control



Loss of Well Control per Well Drilled



GOM LWC per Million Barrels of Oil Produced



The Bureau requires that all loss of well control be reported by immediate oral report, per 30 CFR 250.188(a)(3)

Trends

Over the 8-year timeframe (2006-2013), the GOM averaged 5.25 LWC a year. That is the equivalent of having one LWC incident every 70 days.

2011 was a record low for LWC incidents since the release of the incident reporting rule. However, the lowest incident rate per well drilled was 2006.

LWC Types (2006-2013)

Flow Underground:	8.6%
Flow Surface:	34.3%
Diverter Flow:	11.4%
Surface Equipment Failure:	45.7%

In 2013, the Agency saw an GOM LWC for every 0.026 GOM wells drilled.

Synopsis of Data



BSEE has 288 unique loss of well control incidents captured in our database from 1956 – 2010. Additionally, BSEE has 18 additional cases in TIMS from 2010-2013 which are not accounted for in this synopsis:

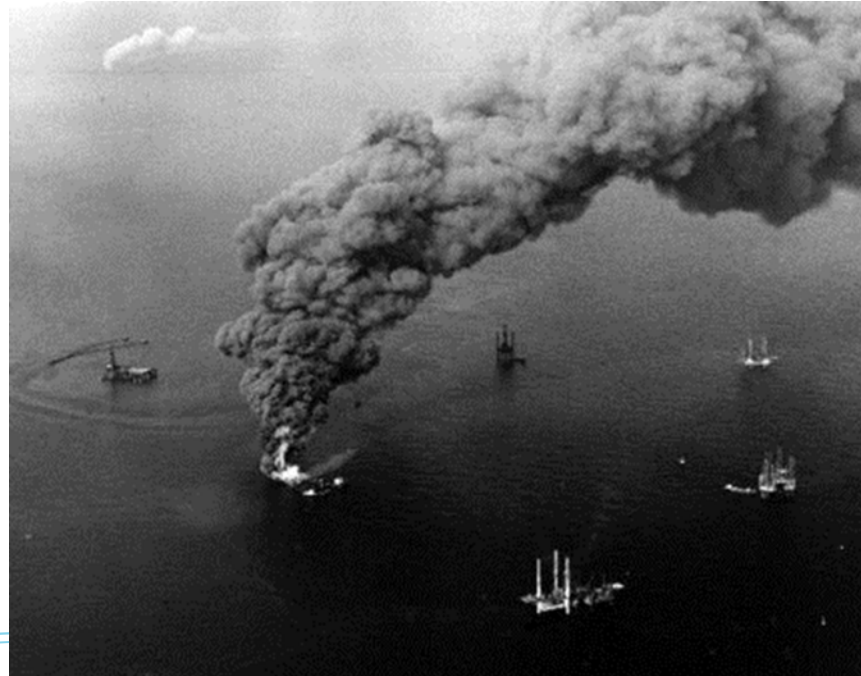
- 69 of 288 Incidents had a duration of ≥ 5 days (24%)
 - 55 of 69 occurred in water depth < 300 feet (80%)
 - 42 of 69 occurred within 50 miles of shore (61%)
 - 31 fatalities in 5 of the 69 incidents
 - 84 injuries in 7 of the 69 incident
 - 8 incidents were oil blowouts (12%)
 - Max duration of the oil blowout – 141 days, 10 relief wells drilled

12/1/70 – ST 26 B – Bay Marchand



Four fatalities, thirty six injuries, lost platform and 2 drilling rigs, minor amounts of oil on beaches. 53,000 bbls estimated to be spilled.

10th and final relief well killed blowout on April 7th, 1971.





**Thank you for your
attention.**

Website: www.bsee.gov