

#### BlueCrest Energy Activity Update, J. Benjamin Johnson CIRCAC Board of Directors Meeting – Kodiak, 9/12/2014

**September 12, 2014** 



# **BlueCrest Energy – Overview**

#### **Business Highlights**

- Small privately-held oil and gas development company
- Entire focus is 100%-owned oil and gas assets in the Cook Inlet basin (Cosmopolitan Project)
- BlueCrest shareholders have invested more than \$100 million to date in the company's Cook Inlet assets
- Experienced directors and management
  - Former high-level oil industry executives (ARCO, Conoco, El Paso, Eni)
  - Close personal ties to Alaska and the Cook Inlet
  - Long track record of successful large field developments
- > Emphasis on personnel safety and environmental sensitivity
- Alaska-based operations team
  - Anchorage headquarters
  - Anchor Point operations base



#### Cook Inlet Legacy - Johnson home, Anchor Point (1954)





- BlueCrest Alaska Operations LLC
- Operations senior management all Alaska based
- Alaska contractors where practical
- Excavation work beginning September 2014
- Local hiring preference for construction and operations





## **Cosmopolitan Project History and Introduction**

Over 1.3 billion barrels of oil and 7.6 tcf of gas have been produced from the basin, essentially all of which was discovered by 1967 (when Prudhoe Bay was discovered)



#### **Cosmopolitan Project History**









# **Cosmopolitan Development Plan**

# Cosmopolitan Plan of Development Oil Development

1-mile

#### Onshore oil wells only

- Extended-Reach-Drilling ("ERD") wells to oil zones (>5400' TVD)
- Current proven technology with design by world experts
- Onshore Rig LOI executed
- Permitting and facilities design ongoing
- Offshore delineation well Q2-2015
- Initial oil development wells drilled and facilities constructed in 2015
- First oil sales in 1H-2016, trucked to Tesoro refinery
- Initial water injection wells drilled in 2016

### Drilling of Hansen 1 Well





### **Onshore Rig Configuration**





Hansen 1AL1 wellhead (existing)

Onshore surface use lease Current gravel pad showing future wellheads

#### **Facility Layout**





#### Environmental and Community Considerations: Onshore

- Tall berms (as much as 14 feet high) to reduce noise and light from the site for the neighbors
  - The berms also serve as containment so nothing can drain off the site and especially into Stariski creek or Cook Inlet.
- High noise equipment installed inside of an insulated building to contain the noise
- Light deflectors for area lighting to contain the light within the site
- Use of grid power to eliminate emissions from the site from power generation unless the grid goes down
- Use of both natural gas power generator and diesel generator for backup power
  - The natural gas generator will produce less emissions and will be the primary backup generator while the grid is down. In case natural gas is not available, the diesel generator can be used for primarily for people protection during extreme weather while also allowing the site to maintain production. Each generator is sized to allow Train A oil to stay in production.
- Containment for the truck loading racks for any spills
  - Spills drain back to the drain system where it will then be reprocessed and then sent back to the oil tanks for trucking to customers.
- Primary containment around all tanks for catastrophic events such as tank rupture
  - This is a very unlikely event, but any rupture/spill is fully contained and will drain to the sump system.



# Cosmopolitan Plan of Development Gas Development

1-mile

- Offshore wells from two platforms
  - Shallow dry gas zones
  - Platforms similar to one being installed in northern Cook Inlet by Furie
  - Subsea pipelines tie-in to onshore oil facility
  - Initial Cosmo designs complete
  - Offshore jackup rig LOI executed with Spartan Drilling
  - Development timing awaiting gas marketing and investment decision

#### **Offshore Monopod Gas Platform Characteristics**

#### **Platform Specifications**

- 18-ft diameter central outer caisson
  - 3" thick steel walls
- 11ft diameter inner caisson
- Six 30-inch well conductors and grout in annulus between caissons
- Eight 42-inch diameter skirt piles
- Water depth 60-70ft
- Pile penetration = 120ft
- Cantilevered jackup rig used for drilling
- Support for small platform rig (workover, wireline, coiled tubing)
- 2 pipeline risers inside inner caisson
- Each platform designed for 30 mmscfd, dry gas no liquid hydrocarbons





#### **Platform Characteristics - Deck**

- Automated operations
- 12-man temporary quarters
- Elevations
  - Helideck TOS (+)102
  - Main Deck TOS (+)82
  - Production Deck TOS (+)62
- Crane
- Flare boom
- Walled production deck
- Wellhead access from deck
- Skid beams for small rig or well work equipment





#### Environmental and Community Considerations: Offshore

- No liquid hydrocarbon production, dry gas only
- Entire process system is computer automated and continuously monitored
- Multiple-redundancy in process safety systems
- Every component of the process system has been analyzed for potential failures, and accommodations made (including procedures) for handling such failure to prevent safety and/or environmental breaches
- Fail-safe design to force automated shut-down in the event of system failure
- Monpod caisson has 3-ft of steel and cement around exterior
- Platform design has smooth round exterior at water line to allow ice and any floating objects to pass by
- Subsea pipelines located below fishing net depths
- All physical connections between onshore and offshore (pipelines, cables) are bored under the beach
- Small platform size to minimize visual impact



# Endeavor jack-up rig drilling Cosmopolitan #1 well

# Cosmopolitan production platform shown to scale

# BlueCrest Energy