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Ms. Chantal Walsh, Director Oil and Gas Division Alaska Department of Natural Resources 550 W. 7<sup>th</sup> Avenue, Suite 1100 Anchorage, AK 99501

## 2018 PLAN OF DEVELOPMENT FOR THE TRADING BAY UNIT

Hilcorp Alaska, LLC ("Hilcorp"), as Operator of the Trading Bay Unit ("TBU"), hereby submits the 2018 Plan of Development for the TBU ("2018 POD") to the State of Alaska, Department of Natural Resources ("DNR"), pursuant to 11 AAC 83.343.

On April 17, 2017, DNR approved the 2017 Plan of Development and Operations ("2017 POD") for the TBU, submitted by Hilcorp. The 2017 POD was approved for the period of June 2, 2017 through May 31, 2018.

# I. <u>PERIOD</u>

This plan will be effective from June 1, 2018 through May 31, 2019. The 2019 POD will be submitted on or before April 1, 2019.

# II. <u>2017 ANNUAL REPORT</u>

The following is Hilcorp's annual report of the 2017 POD pursuant to 11 AAC 83.343 (d):

# A. 2017 McArthur River Field Development Plans Anticipated:

- 1. Drilling Program: Hilcorp anticipated drilling four sidetrack wells from the King Salmon Platform, being the K-06RD2, K-24RD3, K-03RD2 and K-26RD2 wells.
- 2. Grass Roots Drilling Program: Hilcorp anticipated drilling up to three grass roots wells from the Steelhead Platform to target the upper West Foreland Oil Pool. The wells anticipated to be drilled were the M-35, M-36 and M-37 wells.
- **3.** Workover Program: Hilcorp did not anticipate any rig workover operations. However, Hilcorp committed to repair or replace failed electronic submersible pumps ("ESPs") as needed or required.
- 4. Surface Facility Operations: During the 2017 POD period Hilcorp anticipated completing the fin fan replacement on the Dolly Varden Platform.
- **B. 2017 McArthur River Field Development Plans Achieved:** The extent to which the requirements of the previously approved plan were achieved is as follows:

- 1. Production Summary: From January 1, 2017 through December 31, 2017 Hilcorp produced 1,703 thousand barrels ("MBBL") of oil<sup>1</sup> and 7,286 million standard cubic feet ("MMSCF") of gas.
- 2. Drilling Program: During the 2017 POD period Hilcorp completed the following three four planned sidetrack wells from the King Salmon Platform:
  - a) K-06RD2
  - **b)** K-24RD3
  - c) K-03RD2
- **3.** Grass Roots Drilling Program: Hilcorp did not execute any of the grass roots wells planned from the Steelhead Platform.
- 4. Workover Program: Hilcorp executed the following unplanned workover operations:
  - a) Dolly Varden Platform:
    - D-16RD Repair ESP
    - D-20 Repair ESP
  - b) Grayling Platform
    - G-32 Repair ESP
    - G-21RD Attempt to convert to gaslift
  - c) Steelhead Platform
    - M-06 RD Initial completion
    - M-32RD Plugback operations for side**t**rack
    - M-32RD2 Initial completion
    - M-17 Perf adds to Grayling Gas Sand
    - M-09 Perf adds to Grayling Gas Sand
  - d) King Salmon Platform
    - K-03RD2 Initial completion
    - K-10RD2 Initial completion
    - K-12RD2 Repair ESP
    - K-01RD Repair ESP
    - K-17 Repair ESP
    - K-13RD2 Repair hydraulic instrumentation and controls ("HIC") and ESP

<sup>&</sup>lt;sup>1</sup> Combined production from all for platforms (including West Foreland, Hemlock and Middle Kenai G-Zone Oil Pools and corresponding Participation Areas)

**5.** Surface Facility Operations: During the 2017 POD period Hilcorp completed the anticipated fin fan replacement at the Dolly Varden Platform.

Additionally, Hilcorp also finished the installation and commissioning of the shipping turbine to support the drilling program.

- **C. 2017 McArthur River Field Development Plans Not Achieved:** The following are actual operations that deviated from or did not comply with the previously approved plan:
  - 1. Drilling Program: Hilcorp did not execute the anticipated sidetracking of the K-26RD2 Well because the K-26RD Well was already online. Hilcorp decided that sidetrack operations were unnecessary and moved the rig to accelerate the Granite Point drilling program.
  - 2. Grass Roots Drilling Program: Hilcorp was able to successfully target and produce from the upper West Foreland Oil Pool by sidetracking the M-28RD, M-06RD and M-32RD2 wells rather than drilling the anticipated M-35, M-36 and M-37 grass roots wells.

## D. 2017 Trading Bay Field Development Plans Anticipated:

- 1. Drilling Program: Hilcorp anticipated sidetracking the A-04RD Well from the Monopod Platform into the North Trading Bay Unit ("NTBU"), targeting Hemlock and Tyonek G-zone Sands production from ADL 017597.
- **2.** Grass Roots Drilling Program: Hilcorp did not anticipate performing any grass roots drilling operations.
- **3. Workover Program:** Hilcorp did not anticipate any rig workover operations. However, Hilcorp committed to repair or replace failed electronic submersible pumps ("ESPs") as needed or required.
- 4. Surface Facility Operations: Hilcorp anticipated upgrading living quarters and gas lift compressor systems on the Monopod Platform.
- **E. 2017 Trading Bay Field Development Plans Achieved:** The extent to which the requirements of the previously approved plan were achieved is as follows:
  - 1. **Production Summary:** From January 1, 2017 through December 31, 2017 Hilcorp collectively produced 72.91 MBBL of oil and 1,294.8 MMSCF of gas from the Monopod Platform.
  - 2. Drilling Program: Hilcorp did not execute any sidetrack operations.

- **3.** Workover Program: Hilcorp did not anticipate any recompletions for the 2017 POD period. However, Hilcorp identified opportunities to improve the productivity of the A-13 and A-18 wells by installing deep-set ESPs. These operations were successfully completed and enhanced the production rate from the Monopod Platform.
- **4.** Surface Facility Operations: As anticipated, Hilcorp completed the control system upgrade to the existing gas lift compressor systems on the Monopod Platform.
- **F. 2017 Trading Bay Field Development Plans Not Achieved:** The following are actual operations that deviated from or did not comply with the previously approved plan:
  - 1. **Drilling Program:** Hilcorp did not execute the anticipated sidetracking of the A-04RD Well from the Monopod Platform into the North Trading Bay Unit as it was decided that additional follow-up seismic evaluation was required to define the drilling target and trajectory.
  - 2. Surface Facility Operations: After much deliberation it was ultimately decided that the anticipated upgrades to the living quarters on the Monopod Platform were not required.

# III. 2018 PLAN OF DEVELOPMENT

The following activities included in this 2018 POD follow the outline provided in 11 AAC 83.343 (a) and incorporate all planned development activities anticipated based on all data reasonably available at this time.

# A. McArthur River Field Development Activities:

- 1. Long-Range Development Activities: The following are long-range proposed development activities for McArthur River Field, including plans to delineate all underlying oil or gas reservoirs into production, and maintain and enhance production once established:
  - a) Continue evaluation of existing completions for rig workover opportunities to optimize the drawdown and lift mechanism at Monopod Wells.
- 2. Exploration/Delineation Plans: The following are plans for the exploration or delineation of any lands in McArthur River Field not included in a participating area:
  - a) Hilcorp does not have any planned exploration or delineation activities for any land not included in a participating area.

- **3. Proposed Operations:** The following are details of the proposed operations for the 2018 POD period:
  - a) Grass Roots Drilling Program: Hilcorp anticipates drilling the following two grass roots wells from the Steelhead Platform.
    - i. M-22Well Targeting Grayling Gas Sands
    - ii. M-35/M-35L1 Well multi-lateral well targeting upper West Foreland Sand.
    - **b)** Sidetrack Drilling Program: Hilcorp does not plan to perform any sidetrack operations during the 2018 POD period.
    - c) Workover Program: Hilcorp does not have any workover operations planned for the 2018 period, however ESP repairs or replacements will be executed as needed.
- 4. Surface Location of Proposed Facilities: The following are the surface locations of proposed facilities, drill pads, roads, docks, causeways, material sites, base camps, waste disposal sites, water supplies, airstrips, and any other operation or facility necessary for unit operations:
  - a) Hilcorp does not anticipate any major facility upgrades. Repairs or replacement equipment will be installed as needed to support ongoing drilling and production activities.

# **B.** Trading Bay Field Development Activities:

- **1. Long-Range Development Activities:** The following are long-range proposed development activities for the TBU, including plans to delineate all underlying oil or gas reservoirs into production, and maintain and enhance production once established:
  - a) Evaluate and drill rotary sidetrack wells into the North Trading Bay Field from the Monopod Platform to improve ultimate recovery from the field.
  - **b)** Continue evaluation of existing completions for rig workover opportunities to optimize the drawdown and lift mechanism at Monopod wells.
- **2.** Exploration/Delineation Plans: The following are plans for the exploration or delineation of any land in Trading Bay Field not included in a participation area:
  - a) Hilcorp has no delineation plans in place for Trading Bay Field.

- **3. Proposed Operations:** The following are details of the proposed operations for the 2018 POD period:
  - a) Grass Roots Drilling Program: Hilcorp does not anticipate executing any grass roots drilling operations.
  - **b)** Sidetrack Drilling Program: Hilcorp anticipates sidetracking the A-04RD Well from the Monopod Platform into the North Trading Bay Unit, targeting Hemlock and Tyonek G-zone Sands.
  - c) Workover Drilling Program: Hilcorp does not have any workover operations planned for the 2018 period, however ESP repairs or replacements will be executed as needed.
- 4. Surface Location of Proposed Facilities: The following are the surface location of proposed facilities, drill pads, roads, docks, causeways, material sites, base camps, waste disposal sites, water supplies, airstrips and any other facility necessary for unit operations:
  - a) There are currently no plans for facility upgrades at the Monopod Platform.

Your approval of this proposed POD is respectfully requested. Hilcorp believes that this 2018 POD satisfies the requirements of 11 AAC 83.343 and is in compliance with the provisions of 11 AA 83.303. Should you have questions, please contact the undersigned at 777-8418.

Sincerely,

Michael W. Shell

Michael W. Schoetz, Landman Hilcorp Alaska, LLC

cc: Kevin Pike, Division of Oil and Gas (via email)