

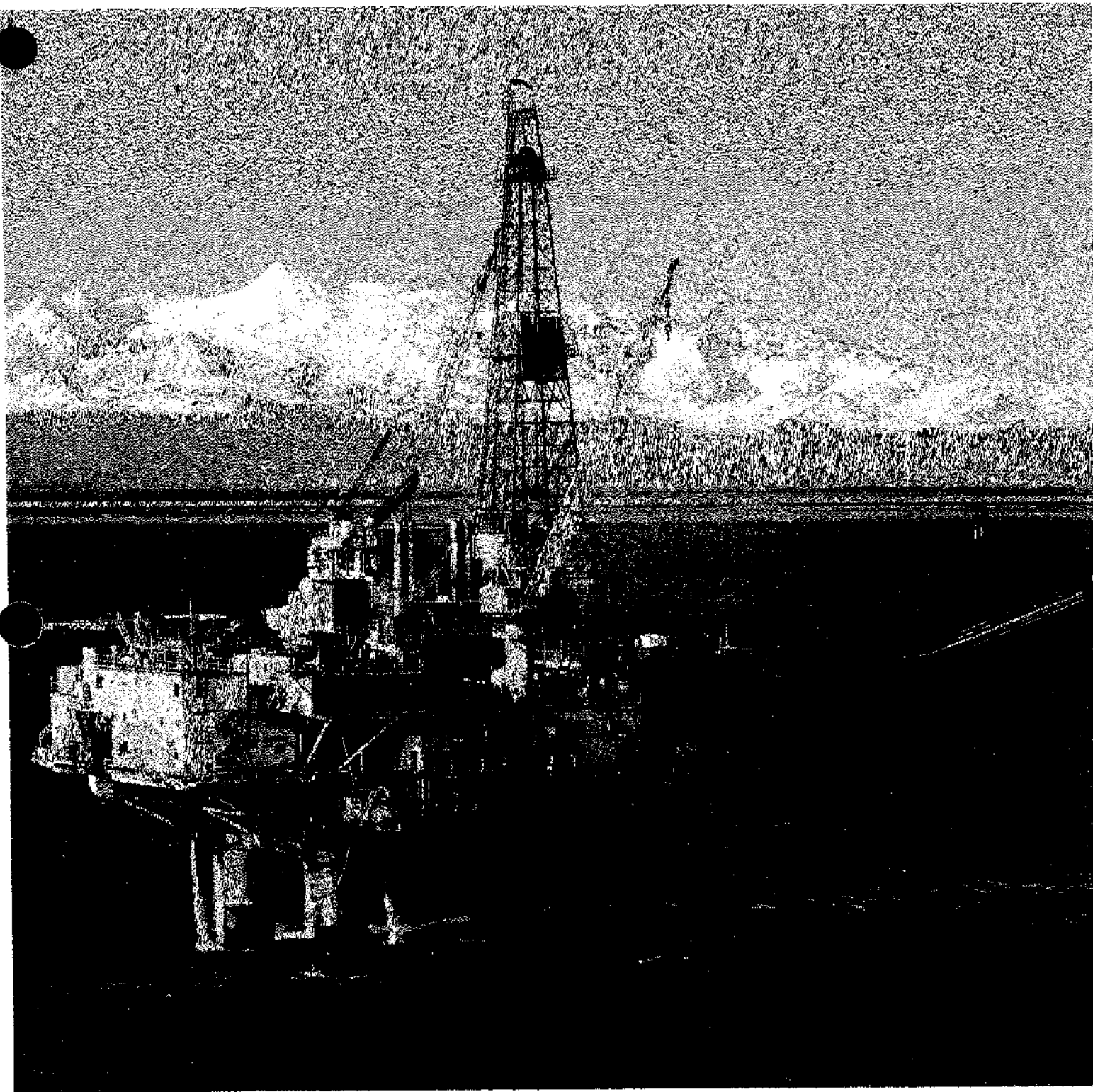
# PLATFORM KING SALMON

McARTHUR RIVER FIELD

INSTALLED 1967

## Platform King Salmon

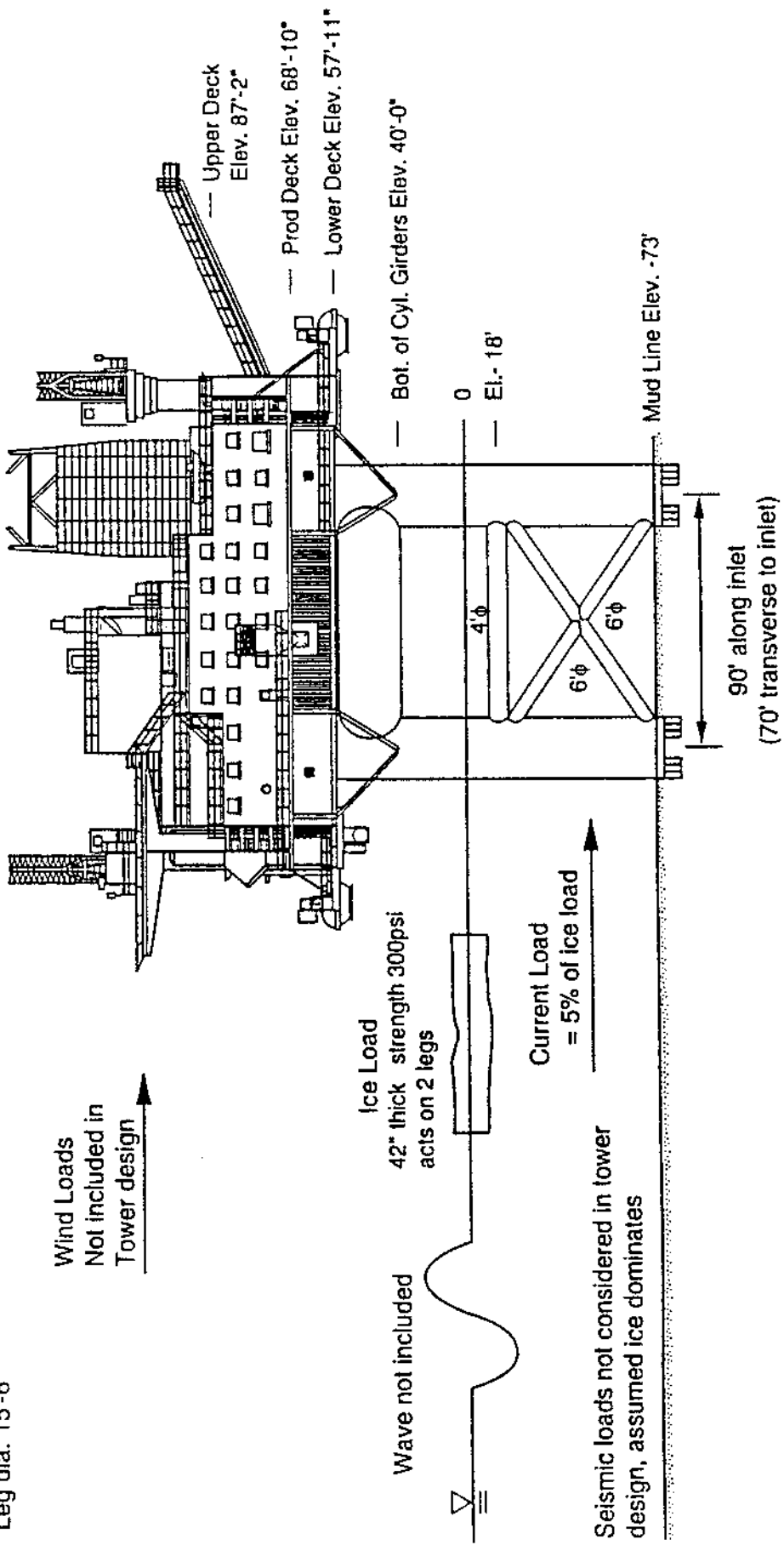
1. *Field name:* ..... McArthur River field
  2. *Platform operator:* ..... Unocal
  3. *Platform owner(s):* ..... Unocal & Marathon
  4. *Original operator:* ..... Arco
  5. *Structural design firm:* ..... Earl & Wright
  6. *Fabrication yard (structure):* ..... Kaiser Steel in Oakland, CA
  7. *Installation year and contractor:* ..... 1967; McDermott
  8. *Waterdepth (at MLLW):* ..... 73 feet
  9. *Number and diameter of legs:* ..... Four legs; 15.5 feet
  10. *Number, size and penetration of piling:* ..... Eight piles per leg; 36 inch diameter; 100 feet penetration;  
33 inch sleeves near mudline.
  11. *Number, size and penetration of inner piling:* ..... Eight per leg; 24 inch diameter; 260 feet penetration.
  12. *Method of installation (driven, drilled, combination):* ..... Combination
  13. *Length of grouted interval in legs:* ..... 128 feet
  14. *Design codes used (UBC, AISC, API RP 2A, etc):* ..... UBC, AISC
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15. *Number of completed wells in each leg through piling:* ..... Eight wells each in Legs 1, 2 and 4. None in Leg 3.
  16. *Other completed wells in each leg:* ..... None
  17. *Top girders used as storage tanks ?* ..... Yes
  18. *If so, what type of liquid:* ..... Drill water, diesel fuel, crude oil, drain water.
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19. *Design criteria used:*
    - (1) *Ice thickness and strength:* ..... 42 inch; 300 psi
    - (2) *Wave height and period:* ..... 28 feet with 8.5 second period
    - (3) *Wind:* ..... 65 mph with 100 mph gusts
    - (4) *Earthquake:* ..... 0.06 g per UBC 1964
    - (5) *Temperature:* ..... Minus 40° F above water, plus 28° F below water
    - (6) *Current:* ..... 12 feet per second
  20. *Design considerations:* ..... 20 year design life
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21. *Unusual circumstances during installation ?* ..... None
  22. *Significant modification or additions to topsides:* ..... Added waterflood and compressors
  23. *Any significant structural damage incidents ?* ..... Explosion on April 8, 1976 in sub-deck required floor  
replacement and plate girder repair.
  24. *Has platform structural design been re-assessed ?* ..... No
  25. *If so, by whom and for what reason:* .....
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26. *Type of steel used; above water and below water:* ..... ASTM A-537 Grade A and B where low temperature steel  
required. A-36 and A-441 elsewhere.
  27. *Steel corrosion allowance used:* ..... 0.7 inch
  28. *Type of cathodic protection:* ..... Impressed current
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29. *Dates and API RP 2A levels of underwater inspection:* ..... 1985 - Cathodic protection survey; 1984 - Scour survey.



Platform King Salmon in the McArthur River field.

Designed by Earl & Wright in 1967  
 Jacket Wt. 1585 tons  
 Deck Wt. 1200 tons

8 Piles per leg 36" dia.  
 Penetration 100'  
 33" x 30.5" sleeves (near mudline)  
 24" insert pile 260' penetration  
 Leg dia. 15'-6"



Elevation view and summary details of platform King Salmon.