



International Construction Consulting, LLC

Conceptual Midstream Field Development Project

Cost Estimate for Well Pad Construction; Flowline & Pipeline Installation for Crude, Gas, and Water; Well Pad Hook Ups

DOCUMENT APPROVAL / REVISION RECORD

| Rev # | Comment | Prepared by: | Reviewed / Date | Endorsement / Date |
|-------|---------|--------------|-----------------|--------------------|
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|---|--|--|--|---|
| Conceptual Midstream Field Development Project | Total Project Total = \$465,171,000 | | |  |
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|----------------------------|---|----------------------------|----------------------------|--|---|
| Suggested Resource loading | Under \$500,000= 10 Up to \$1 million= 15 - 18 Up To \$ 2.5 million ...= 18 - 30 Up To \$ 5 million= 30 - 60 Over \$ 5 million.....= 60 + | Construction Driver | Number of Resources | Estimated Construction Duration (Weeks) | Estimated Construction Duration (Months) |
| | | RESOURCE | 309 | 219 | 50.4 |

| Flowline Construction Summary | | LABOR | MATERIALS | TOTALS |
|--------------------------------------|--|---------------|----------------------|---------------|
| PRODUCTION LINE | | \$29,066,000 | \$6,257,000 | \$35,323,000 |
| STEAM LINE | | \$0 | \$0 | \$0 |
| GAS LINE | | \$29,528,000 | \$6,257,000 | \$35,785,000 |
| PRODUCED WATER | | \$100,729,000 | \$28,416,000 | \$129,145,000 |
| Pipeline Sub Total | | | \$200,253,000 | |

| Well Pad Construction Summary | QUANTITY | WELL TYPE | UNIT PRICE | TOTALS |
|--------------------------------------|-----------------|------------------|-------------------|---------------|
| HORIZONTAL WELLS | 80 | HORIZ | \$130,000 | \$10,400,000 |
| VERTICAL PRODUCTION WELLS | 0 | VERT | \$0 | \$0 |
| INJECTION WELLS | 0 | INJ | \$0 | \$0 |
| WOI WELLS | 0 | WOI | \$0 | \$0 |
| WOP WELLS | 0 | WOP | \$0 | \$0 |
| RTP WELLS | 0 | RTP | \$0 | \$0 |
| RTI WELLS | 0 | RTI | \$0 | \$0 |
| PIC WELLS | 0 | PIC | \$0 | \$0 |
| IPC WELLS | 0 | IPC | \$0 | \$0 |
| TO WELLS | 0 | TO | \$0 | \$0 |
| UNIT SWAPS | 0 | SWAP | \$0 | \$0 |
| GAUGE SETTING HEADER'S | 80 | | \$98,000 | \$7,840,000 |
| WELL PAD EQUIPMENT & SETTING | 80 | | \$1,942,000 | \$155,360,000 |
| TRANSFORMERS | 8 | | \$85,000 | \$680,000 |
| 12 KV ELECTRICAL | 0 | 0 | \$0.00 | \$0 |

NOTE: Well Head Equipment, including Headers, Well Pad Equipment, Transformers, and Electric assume 6 Well's per Well Pad.

| | | | |
|---------------------------|-----|--------------|----------------------|
| Well Pkg Sub Total | | | \$174,280,000 |
| Engineering % | 8% | \$29,963,000 | |
| Contingency % | 15% | \$60,675,000 | |

Conceptual Midstream Field Development Project



Flowline Construction Summary Details

| Work Breakdown Structure | Quantity | Labor | Materials |
|--|-------------------------|----------------------|--------------------------------------|
| PRODUCTION LINE ESTIMATE | | | |
| Installation of Std Wall Pipe (1,000 ft. min.) | 520,000 | \$14,780,852 | \$4,999,223 |
| Installation of SCH 80 Wall Pipe (1,000 ft. min.) | 0 | \$0 | \$0 |
| Std Fitting Welds (1 cut & Bevel 2 Welds) | 1,040 | \$1,919,139 | \$20,544 |
| SCH 80 Fitting Welds (1 cut & Bevel 2 Welds) | 0 | \$0 | \$0 |
| Std. Road Crossing (40 ft.) | 1,040 | \$4,765,391 | \$430,666 |
| SCH 80. Road Crossing (40 ft.) | 0 | \$0 | \$0 |
| Std. Welded Loop (8 welds ea.) | 0 | \$0 | \$0 |
| SCH 80 Welded Loop (8 welds ea.) | 0 | \$0 | \$0 |
| Install Supports / Sleepers | 0 | \$0 | \$0 |
| Bolt ups (based on 150 # system) | 1,040 | \$304,126 | \$94,208 |
| 150# Gate Valves | 520 | | \$153,183 |
| X-Rays (Based on 1 day min. W. Film Cost) | 17,160 | \$4,653,647 | \$558,438 |
| Project Management & Indirects (BP) | 10% | \$2,642,315 | |
| Subtotal Production Lines | | \$29,065,470 | \$6,256,261 |
| SubTotal Cost per Foot: | \$67.93 | | |
| STEAM LINE ESTIMATE | | | |
| Installation of Std Wall Pipe (1,000 ft. min.) | 0 | \$0 | \$0 |
| Installation of SCH 80 Wall Pipe (1,000 ft. min.) | 0 | \$0 | \$0 |
| Std Fitting Welds (1 cut & Bevel 2 Welds) | 0 | \$0 | \$0 |
| SCH 80 Fitting Welds (1 cut & Bevel 2 Welds) | 0 | \$0 | \$0 |
| Std. Road Crossing (40 ft.) | 0 | \$0 | \$0 |
| SCH 80. Road Crossing (40 ft.) | 0 | \$0 | \$0 |
| Std. Welded Loop (8 welds ea.) | 0 | \$0 | \$0 |
| SCH 80 Welded Loop (8 welds ea.) | 0 | \$0 | \$0 |
| Install Meter Run & ICL | 0 | \$0 | \$0 |
| Splitigators & Mitigators | 0 | \$0 | \$0 |
| Install Supports / Sleepers | 0 | \$0 | \$0 |
| Bolt ups (based on 300 # system) | 0 | \$0 | \$0 |
| 600# Gate Valves | 0 | | \$0 |
| X-Rays (Based on 1 day min. W. Film Cost) | 0 | \$0 | \$0 |
| Project Management & Indirects (BP) | 10% | \$0 | |
| Subtotal Steam Lines | | \$0 | \$0 |
| SubTotal Cost per Foot: | \$0.00 | | |
| GAS LINE ESTIMATE | | | |
| Installation of Std Wall Pipe (1,000 ft. min.) | 520,000 | \$14,780,852 | \$4,999,223 |
| Installation of SCH 80 Wall Pipe (1,000 ft. min.) | 0 | \$0 | \$0 |
| Std Fitting Welds (1 cut & Bevel 2 Welds) | 1,040 | \$1,919,139 | \$20,544 |
| SCH 80 Fitting Welds (1 cut & Bevel 2 Welds) | 0 | \$0 | \$0 |
| Std. Road Crossing (40 ft.) | 1040 | \$5,185,289 | \$430,666 |
| SCH 80. Road Crossing (40 ft.) | 0 | \$0 | \$0 |
| Std. Welded Loop (8 welds ea.) | 0 | \$0 | \$0 |
| SCH 80 Welded Loop (8 welds ea.) | 0 | \$0 | \$0 |
| Install Supports / Sleepers | 0 | \$0 | \$0 |
| Bolt ups (based on 150 # system) | 1040 | \$304,126 | \$94,208 |
| 150# Gate Valves | 520 | | \$153,183 |
| X-Rays (Based on 1 day min. W. Film Cost) | 17160 | \$4,653,647 | \$558,438 |
| Project Management & Indirects (BP) | 10% | \$2,684,305 | |
| Subtotal Gas Lines | | \$29,527,359 | \$6,256,261 |
| SubTotal Cost per Foot: | \$68.81 | | |
| LEASE WATER ESTIMATE | | | |
| Installation of Std Wall Pipe (1,000 ft. min.) | 520,000 | \$63,062,069 | \$24,815,419 |
| Installation of SCH 80 Wall Pipe (1,000 ft. min.) | 0 | \$0 | \$0 |
| Std Fitting Welds (1 cut & Bevel 2 Welds) | 1,040 | \$9,318,840 | \$194,718 |
| SCH 80 Fitting Welds (1 cut & Bevel 2 Welds) | 0 | \$0 | \$0 |
| Std. Road Crossing (40 ft.) | 1,040 | \$11,719,560 | \$1,571,929 |
| SCH 80. Road Crossing (40 ft.) | 0 | \$0 | \$0 |
| Std. Welded Loop (8 welds ea.) | 0 | \$0 | \$0 |
| SCH 80 Welded Loop (8 welds ea.) | 0 | \$0 | \$0 |
| Install Supports / Sleepers | 0 | \$0 | \$0 |
| Bolt ups (based on 150 # system) | 1,040 | \$489,987 | \$0 |
| 150# Gate Valves | 520 | | \$716,702 |
| X-Rays (Based on 1 day min. W. Film Cost) | 17,160 | \$6,980,470 | \$1,116,875 |
| Project Management & Indirects (BP) | 10% | \$9,157,093 | |
| Subtotal Lease Water Lines | | \$100,728,018 | \$28,415,644 |
| SubTotal Cost per Foot: | \$248.35 | | |
| | Labor Total: | \$159,320,848 | Total Cost per Foot: \$128.36 |
| Pipeline Installation Totals | Materials Total: | \$40,928,165 | % of Labor to Total: 80% |
| | Grand Total: | \$200,249,013 | % of Materials to Total: 20% |
| | Total Footage: | 1,560,000 | Total Cost per Foot: \$128.36 |