



City of Culver City City Council Meeting

Capital Investment Amortization Study for the City of Culver City Portion of the Inglewood Oil Field

August 13, 2020

The City of Culver City (the “City”), located in Los Angeles County, California, retained Baker & O’Brien, Inc. to prepare a ***Capital Investment Amortization Study for the City of Culver City Portion of the Inglewood Oil Field*** (the “Study”), which is dated May 29, 2020. This presentation to the City Council meeting on August 13, 2020, summarizes this Study and incorporates it by reference.

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The analysis, opinions, and findings presented in this Study are based on the experience, expertise, and skill of Baker & O’Brien consultants, as well as their research, analysis, discussions, and related work. All conclusions, forecasts, and projections presented in this Study represent Baker & O’Brien’s best judgment based upon information available as of the Effective Date, and are inherently uncertain due to the potential impact of factors or future events that are unforeseeable or which are beyond Baker & O’Brien’s control. Baker & O’Brien reserves the right to supplement or amend this Study if additional information should subsequently become available that is material to the conclusions presented therein.

- **Baker & O'Brien is an independent professional consulting firm serving clients with interests in the upstream and downstream oil and gas industries.**
 - The firm has completed over 1,500 assignments in the U.S. and around the world.
 - Engagements have included asset valuations, due diligence studies for transactions, land use issues, commercial disputes, and construction disputes.
 - The firm provides expert services to law firms, lenders, insurers, municipalities, operating companies, and manufacturers of transportation fuels and chemical products.
- **Baker & O'Brien has worked with stakeholders in the California oil and gas industry since 1995.**
 - In addition to the City, the firm is currently engaged by Contra Costa County, Kern County, and Los Angeles County on various matters.
 - Engagements have included support to fair market valuation, land-use matters, commercial disputes, and investigation of industrial accidents.

- **Contributors to the Study include the following:**

- **Charles Kemp**

- ❖ BS ChE 1989
- ❖ Industries: upstream oil & gas, midstream, refining, transportation and storage, chemicals
- ❖ Assignments: due diligence, asset valuation, strategic issues, operations, safety, environmental
- ❖ Reports, analysis, and expert testimony



- **William Cheek**

- ❖ BA 2002; MBA 2009
- ❖ Industries: upstream oil & gas, midstream, refining, chemicals
- ❖ Assignments: asset valuation, cost of capital, purchase price allocations
- ❖ Reports, analysis, and expert testimony



- **Donald Flessner**

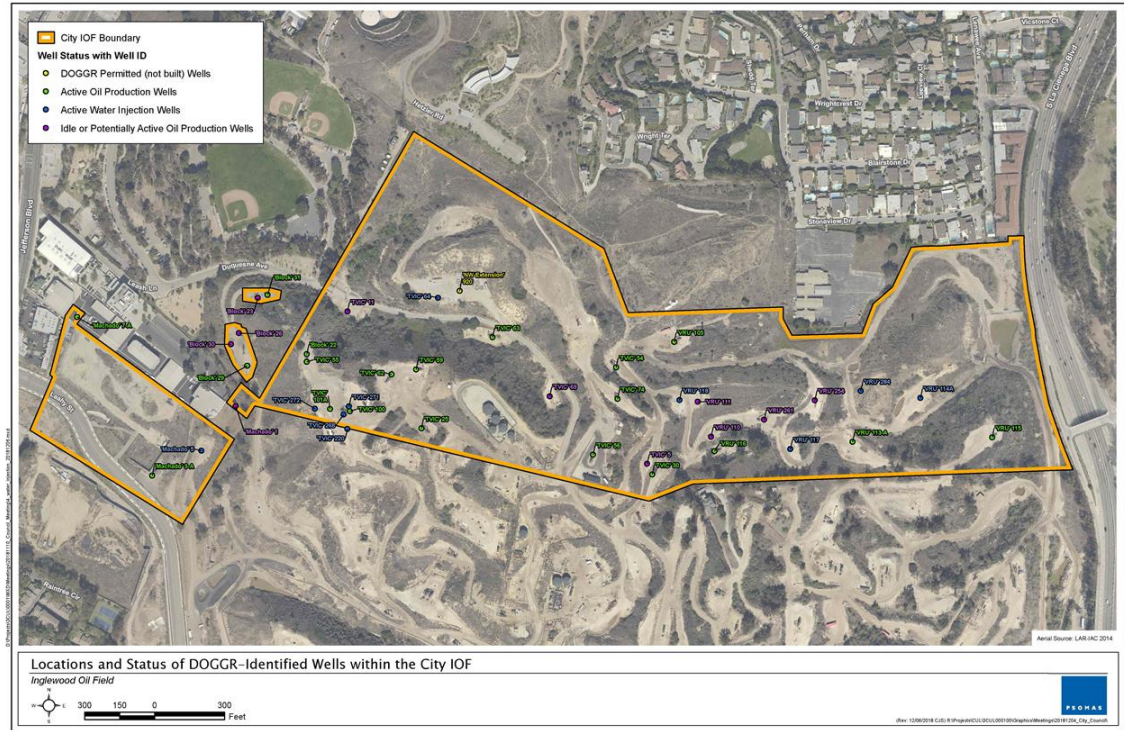
- ❖ BS 1977; MBA 1989
- ❖ Industries: upstream oil & gas, midstream, refining, alternative fuels and chemicals
- ❖ Assignments: due diligence, asset valuation, independent engineer, product quality
- ❖ Reports, analysis, and expert testimony



- **Baker & O'Brien has been engaged to prepare an income model for use in determining amortization of capital investment (ACI) in existing oil and gas production facilities within the Culver City portion of the Inglewood Oil Field (City IOF).**
- **Work Included:**
 - Collection and validation of technical and commercial data;
 - Development of historical and projected capital expenditures, revenues, royalties, and operating costs for oil and gas operations in the City IOF;
 - Investigation of oil and gas industry returns on capital investment; and
 - Preparation of an income model to represent net cash flow from the City IOF.
- **Basis for Study**
 - Mainly public information and consultant's experience.
 - Sentinel Peak Resources provided no proprietary information as input to the Study.
 - An Effective Date of January 1, 2020, for information used in developing historical and projected income streams.

- The City IOF includes approximately 78 acres of the 1,000-acre IOF.
- IOF Ownership
 - 1925: First commercial production
 - 1925 to late 1970s: Various owners
 - Late 1970s: Chevron
 - 1991: Stocker Resources
 - 1992: Plains Resources, Inc.
 - 2013: Freeport McMoRan
 - January 1, 2017: SPR
- At the time of SPR's acquisition, 41 wells were located within the City IOF
 - 21 oil and gas production wells
 - 10 idle production wells
 - 10 water injection wells
 - The oldest well was drilled in 1925
 - No new wells since 2002

Exhibit D: Map of City IOF



- **Income Model Considers:**

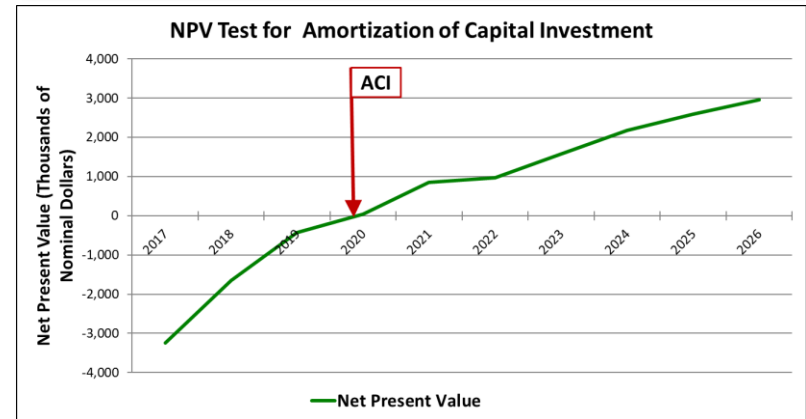
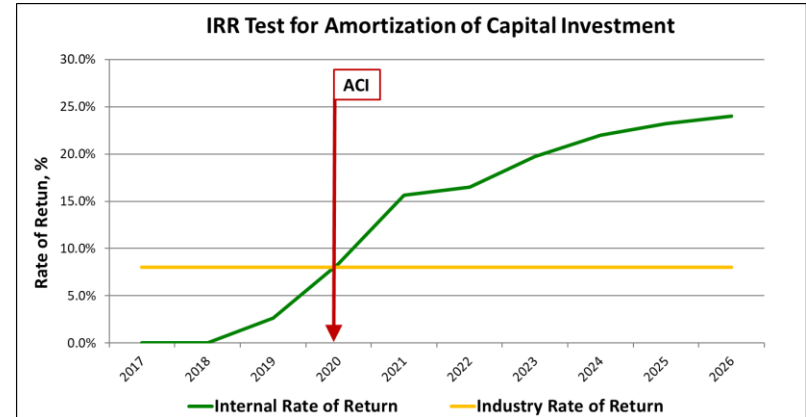
- Initial capital investment
- Sustaining capital investment
- Production rates of oil, natural gas, and water
- Market prices for crude oil and natural gas
- Revenues based on sales of oil and natural gas
- Royalty payments
- Operating expenses
- Income taxes

- **IRR Test (Exhibit J)**

- Internal Rate of Return (IRR) from Income Model
- Compared to industry rate of return
- ACI occurs when IRR exceeds industry rate of return

- **NPV Test (Exhibit K)**

- Net Present Value (NPV) from Income Model
- NPV evaluated at industry rate of return
- ACI occurs when NPV exceeds zero



- **Initial Capital Investment**
 - SPR's initial capital investment for its acquisition of the City IOF
 - Capital investment to drill and complete wells between 1925-2016
- **Sustaining Capital Investment**
- **Production Volumes—historical and projected**
- **Netback Prices for Crude Oil and Natural Gas—historical and projected**
- **Royalties**
- **Operating Costs**
- **Income Taxes**
- **Industry Rate of Return on Investment—8%**

Initial Capital Investment: SPR Acquisition

- **SPR Acquisition Cost for City IOF is Not Reported**
 - The Study evaluates SPR's acquisition cost as the Fair Market Value of the City IOF as of January 1, 2017
- **The Fair Market Value of the City IOF was \$4.64 million, with consideration of the three standard indications of value:**
 - Income Indication of Value: \$5.34 million
 - Cost Indication of Value: \$3.00 million
 - Market Indication of Value: \$5.59 million
- **The income model uses \$4.65 million as SPR's initial investment in the City IOF**
- **In summary, ACI of SPR's initial investment occurs within 4 years of acquisition**

Initial Capital Investment: Drilling and Completion

- **Six Wells Drilled in the City IOF Since 1977 (Exhibit L)**

- Two wells completed in 1977 and 1979, ACI achieved within three years
- Two wells completed in 1982 and 1985, ACI was not achieved due to low production
- Two wells completed in 2002, ACI achieved within five years

Well No	Complete	Amort	Years	2016 IRR	O&G BBL	Water BBL	Water Cut %	Oil Price \$/B	First 5 yrs			Simple Payback Yr
									Capex Avg. \$/B Oil	Opex \$/B Oil	Oil Price/ Capex + Opex	
3709084	1977	1979	3	36.0%	13,086	105,514	89.0%	25.59	4.25	7.59	2.2	1
3709082	1979	1980	2	52.8%	16,003	241,377	93.8%	31.24	4.36	9.50	2.3	1
3722541	1982	None	None	5.1%	6,518	309,739	97.9%	23.56	9.77	11.77	1.1	4
3723170	1985	None	None	6.4%	9,770	395,551	97.6%	15.56	7.18	11.82	0.8	19
3725342	2002	2004	3	47.7%	18,204	211,772	92.1%	38.78	6.30	13.83	1.9	2
3725375	2002	2006	5	30.2%	10,158	266,794	96.3%	38.78	11.29	17.04	1.4	3

- **25 Wells Drilled in the City IOF Prior to 1977 (Exhibit M)**

- Similar economics to the six wells drilled since 1977
- Simple payback of about five years

Period	Wells	Year 15 IRR	O&G BBL	Water BBL	Water Cut %	Oil Price \$/B	First 5 yrs			Simple Payback Yr
							Capex Avg. \$/B Oil	Opex \$/B Oil	Oil Price/ Capex + Opex	
1925-1949	9	14.2%	66,940	472,682	87.6%	1.42	1.01	0.66	0.8	5
1950-1976	16	14.2%	202,761	3,217,333	94.1%	3.85	1.89	2.12	1.0	5
1950-1959	6	15.0%	86,934	666,545	88.5%	2.74	1.36	1.47	1.0	5
1960-1976	10	11.9%	115,827	2,550,788	95.7%	4.52	2.29	2.61	0.9	6

- **In summary, ACI of initial capital investment in drilling and completion occurs within 5 years.**

- **The income model was used to test certain assumptions for ACI of SPR's acquisition.**
 - ***SPR Acquisition Cost:*** If the fair market value of \$4.65 million is replaced with the income indication of value of \$5.34 million, ACI occurs within 5 years.
 - ***Crude Oil Quality Discount:*** If the discount for Inglewood crude oil is reduced from \$1.75/B to \$0.50/B, ACI occurs within 4 years.
 - ***Return on Capital:*** If the industry rate of return of 8% is replaced with the highest cost of equity for oil and gas companies since 2016 of 12%, ACI occurs within 5 years.

- **The time for ACI for SPR's acquisition cost is four years and occurs during 2020**
- **The time for ACI for original capital investment in drilling and completion of individual wells is within five years of completion.**
- **The time for ACI is not sensitive to reasonable changes in key assumptions**

- The following questions were raised in the June 4, 2020, Oil Drilling Subcommittee Meeting:
 - **Q: How are mineral rights and landowners considered in the Amortization Study?**
 - **A: Values related to mineral rights and land ownership are not included in the Study.**
 - **Q: How are remaining oil reserves addressed in the Amortization Study?**
 - **A: Estimates of oil and gas reserves are not valued or included in the Study.**
 - **Q: Why didn't the Amortization Study use information from the Operator?**
 - **A: Proprietary information about the IOF was not available from SPR for the Study.**