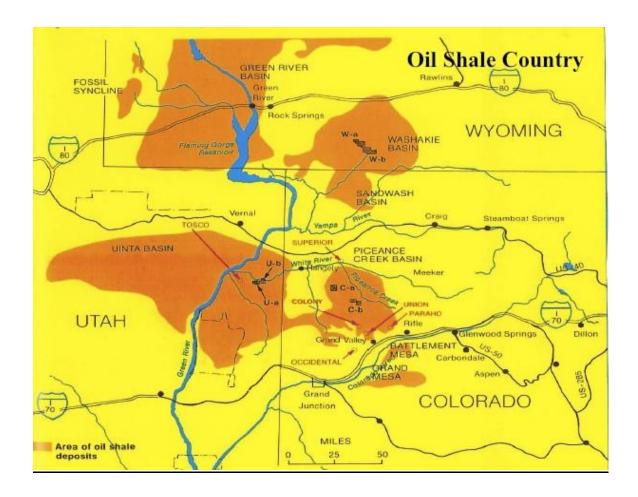
## Exxon/Tosco Colony Oil Shale Project



Exxon Corporation operated the Colony/Tosco Oil Shale Project. Tosco, formerly The Oil Shale Corporation, applied to the Department of Energy under both its Nonnuclear Act (NNA) and Defense Production Act (DPA) ("fast-track") solicitations of October 15, 1980, for a loan guarantee covering 75 percent of the cost of its 40 percent share in the Colony Project. To qualify under DPA, Tosco agreed to provide the Department of Defense ten thousand barrels per day of military specification fuels to be sold at prevailing market prices.<sup>31</sup> Tosco did not seek either a price guarantee or a purchase commitment. In January 1981, Tosco was selected by DOE under the DPA for negotiations. The DOE did receive "pressure from the [Carter] White House to fund the Tosco project."

The negotiations were held only with Tosco, not Exxon. DOE was concerned about what Exxon would do. Specifically, if DOE provided financial assistance to Tosco, would Exxon commit to fund its share of the project as well? No assurances were forthcoming from Exxon. Exxon refused even to talk to DOE.

During the DOE/Tosco negotiations, DOE asked many times for a copy of the Joint Operating Agreement for the Colony Oil Shale Project (JOA). Exxon refused to give permission to Tosco to provide the government a copy. Exxon was obligated under the JOA "to cooperate reasonably in responding to requests with respect to meeting requirements arising from [Tosco's] efforts to obtain its required funding for the Project . . . ," but Exxon interpreted this language as "we will not talk to the government nor will we share with the government." Finally, the DOE did receive one copy with stipulations restricting its distribution. Tosco submitted the same proposal to SFC on March 31, 1981, in response to the first SFC solicitation.

At no time during the negotiations and discussions with the SFC, DOE, and other government officials did Exxon officials participate. Exxon refused, as the company had no desire for the government to be meddling in Exxon's business. Language in the JOA stated that Exxon was not obligated to commit or spend money on the Colony project, even if Tosco did. Further, neither the DOE nor the SFC could obtain any sort of agreement, implied or otherwise, that Exxon would commit to the project. Thus, the concern was legitimate.

Exxon's report was a ten-page white paper published in June 1980, entitled *The Role of Synthetic Fuels in the United States Energy Future*. Tosco's eighty-five page presentation, *The Energy Crisis –Oil Shale: Part of the Solution*, was issued in 1979. Roger Chittum, a Tosco senior officer, recalled that in, 1979-1980, there was an argument being made by many in Washington, DC, that because oil shale alone could not solve the energy insecurity problem, it should not be developed. Tosco believed oil shale was an important and vital *part* of the solution.

Exxon's white paper argued that oil shale would solve the problem, or at least a major part – after

all, why would Exxon purchase Atlantic Richfield's 60-percent ownership of Colony in May 1980 for about \$400 million? Exxon had been on a spending spree, having purchased Reliance Electric Company a year earlier for over \$1 billion.<sup>36</sup> Tosco executives speculated that the intended audience for the white paper was Saudi Arabia, in order to get them to end the deep recession attributed in large part to high oil prices.

Saudi Arabian oil minister Yamani had made it clear during speeches in the Middle East that high oil prices would force Western countries and companies to develop alternate sources of energy, and that this move was not in the national interest of Saudi Arabia. If prices declined, Exxon made money; if prices continued to rise, Exxon made money and also had oil shale.

Exxon made a formal presentation of its white paper on August 25, 1980, in Grand Junction, Colorado, at a meeting arranged by Club 20, a local, commercially oriented, group of leading business people in the area. Because the Piceance Basin – about forty miles northeast of Grand Junction – played such an important role in Exxon's plans, company officials had worked with Club 20 to organize a meeting in Grand Junction. More than 400 representatives of government, business, and communities of the Western Slope met there. Similar conferences had been conducted by Exxon in Houston and Denver.

The Club 20 gathering was hosted by former Colorado Gov. John Vanderhoof. Presentations by Exxon officials Fred Dunnstedt (senior vice president of Exxon USA), Bob

Larkins (manager of Exxon USA's synthetic fuels division), and Sam Vastola (manager, corporate planning, Exxon USA), stated that a synthetic fuels industry could start contributing to the domestic energy supply by the end of the 1980s and grow to a "large sustainable volume" in the 1990s. Synthetic fuels were *the* alternative to continued reliance on imported petroleum through the 1990s and beyond, and shale oil was economically competitive with imported crude oil. Exxon projected that demand for synthetics would reach at least 15 million barrels per day of oil equivalent by 2010 – eight million barrels per day supplied by oil shale and seven million barrels per day from coal gasification projects. This 2010 production volume would meet 12 percent of the nation's projected energy demands and would be augmented by alternative renewable sources, such as solar, and conservation. Exxon suggested that this volume of synthetic

fuels production, in conjunction with the augmented factors, would eliminate America's dependence on foreign oil by the year 2010. To accomplish this, it was imperative that planning and construction of synthetic fuels plants begin immediately. Larkins addressed socioeconomic concerns commenting that by continuing the concerted efforts between the company and local governments, the number of workers could be accommodated in the Piceance Basin area without causing "social and economic chaos."

Although Exxon was ranked number one on *Fortune* magazine's top 500 industries list, the company still would not be able to afford the capital outlay for an oil shale development program requiring an estimated investment in excess of \$3 trillion over the next thirty years. There was mention of – or implied in the language – the fact that Exxon would not seek or want assistance from the government: The \$3 trillion was "within the capabilities of private companies," and "can be handled by the private sector."

Previously in August 1980, Exxon had announced that an executive would move immediately to Grand Junction, Colorado, in recognition of the importance of the Colony Project both to the area and to Exxon.<sup>42</sup> Seven months later in March 1981, Exxon reported a \$75,000 grant "to get a synthetic fuels information and research center at the University of Colorado off the ground." As recently as January 29, 1982, Exxon had told county officials that "their construction schedule [would] require a peak work force of 6,992 in 1985, for the shale facility and related projects."

Tosco's report went into considerable depth about the benefits to the US of the commercial development of oil shale, in conjunction with conservation, solar and other renewables, and the increased production of liquid fossil energy – which Tosco defined as a balanced energy program.

Tosco argued that the "energy crisis" was in fact an "oil problem."

The symptoms appeared when oil prices started to increase, led by OPEC decisions in 1972, and shortages became widespread following the oil embargo of 1973-74 and the trebling of oil prices. The 1979 Iranian revolution only exacerbated the problems.

Oil shale represented a new source of domestic fossil energy: (1) it was an ideal source of

urgently needed premium-quality oil used in transportation, (2) its vast resources would yield a high volume of production well into the next century, (3) the technology was ready, (4) at a projected \$25-per-barrel selling price, oil shale was the most economical of the synthetic fuels and the investment was less than that for offshore production, (5) oil shale development was compatible with the highest standards of environmental quality, (6) each 47,000-barrel-per-day facility generated 2,400 construction jobs, 1,000 permanent operating jobs, and approximately 3,400 jobs in related areas of employment – a total of 6,800 new temporary and permanent jobs, and (7) a \$1.2 billion investment in oil shale development would generate nearly \$5 billion additional in related domestic economic activity for each 47,000-barrel-per-day oil shale facility constructed.

Tosco owned 40 percent of the Colony Project, with Exxon as the operator owning the remaining 60 percent. Initially in 1955, Tosco was founded as a research and development organization to cultivate new technology for the commercial production of high-quality fuels from oil shale. Although Tosco later diversified into other energy-production areas, the continued development of commercially viable systems to produce oil from shale remained its primary corporate objective. For the Colony Project, Exxon and Tosco designed and printed an eighteen-page glossy, four-color brochure, as well as two additional smaller ones – also glossy and four-color, with one eighteen pages and the other sixteen pages.

President Reagan announced on August 5, 1981, that his administration would support a loan guarantee award to Tosco. With SFC personnel assisting in the negotiations, Secretary of Energy James B. Edwards signed a conditional loan guarantee agreement on August 6, 1981, for \$1.2 billion to Tosco for its share of the project costs. As required by the Defense Production Act under which the award was made, the Tosco loan guarantee was submitted to both houses of Congress on September 9, 1981, for a thirty-day review period ending on October 15, with the guarantee not being disapproved during that time. The complete document package for the loan guarantee was finalized and signed on November 10, 1981. At the congressional hearing to

oversee DPA financial programs, specifically the Tosco loan guarantee, Sen. Jake Garn (R-UT) commented that "if the Congress turned over the Sahara Desert to the Department of Energy, within 2 years we would have a shortage of sand in the world."<sup>49</sup> Such was the general view of the DOE. Tosco borrowed the money from the Federal Financing Bank, a department within the Treasury, paying a guarantee fee of ½ percent of the outstanding obligation in addition to the interest rate on the debt. The interest rate was the cost of Treasury borrowings. Disbursements were based on an agreed-upon "Disbursement Milestone Schedule."

Motivated by an upward cost spiral claimed by Exxon (soaring 200 percent and Possibly higher), with a concurrent 15 percent decline in crude prices, Exxon unexpectedly announced on May 2, 1982, the termination of any further funding for the Colony Project.

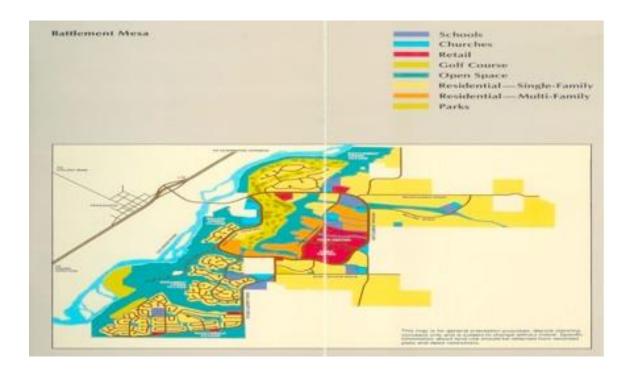
Sunday May 2, 1982, quickly became known as "Black Sunday." The headline in the *Weekly Newspaper* of Glenwood Springs, Colorado, read "Jolt: Exxon's overnight shutdown stuns county." In part, the article said:

The Sunday afternoon announcement rolled like a thunderbolt across Garfield County Monday and Tuesday, effecting [sic] virtually everyone [sic] of its citizens. Some were jolted. Others confused. Many were angry. Some wept. Some cheered. Some got drunk on the proceeds from their last paycheck.

Reporter William Schmidt of the *New York Times* wrote that the shut-down "hit this tiny community [Battlement Mesa/Parachute, CO] like a sledgehammer Sunday."

Exxon's closing left over two thousand workers jobless. The outcome all but erased Battlement Mesa, the town Exxon was developing for them, leaving "a city frozen in mid-burst, a city where old plans cruelly clash with new realities." Colorado Gov. Richard Lamm called it "a disaster.

## Planned development of Battlement Mesa



Exxon's Plan



Battlement Mesa, circa 1982 (Photo courtesy of Glenn Vawter)



Many observers interpreted Exxon's abrupt cancellation as the death knell synthetic fuels in the foreseeable future. John O'Leary, former administrator of the old Federal Energy Administration and first deputy secretary of the new Department of Energy, Was instrumental in drafting the ESA. He called the Exxon decision "a very, very serious blow for the entire synthetic fuels effort in this country."

When asked if he believed a need for synthetic fuels development remained, O'Leary responded:

Yeah, I think the situation that we find ourselves in is not different from what it was in the summer of 1973 or yet again in the summer of 1978. The difficulty here is chronic instability in the principal supplying area for the world, the Middle East, and if you take a look at our situation – the global situation – today, the same sort of catastrophic consequences would flow from an interruption which is no less probable today than it was five or 10 years ago.

The basic cause of instability in the world energy market is still right where it was in the early '70s, and as we found to our terrible perplexity in the late 1970s in the Iranian situation, and that is, most of the oil that's traded in international commerce comes from the Persian Gulf, and that area is simply very, very unstable.<sup>56</sup>

O'Leary opined that the Reagan administration's basic energy policy relied much more Heavily on markets and the free enterprise system than did the original SFC concept as it Developed during the Carter administration.

Tosco disputed Exxon's cost estimates and did not believe that Exxon had sufficient justification to cancel the project. Morton Winston, Tosco chief executive, commented that the "government will need to take a larger role in stabilizing the future environment in order for the plant [Colony] to get built now or later."

type "Exxon Slams on the Brakes." The accompanying article reported that Exxon's president, Randall Meyer, said that the difficult decision was not made lightly and only after several "tough" and "careful" reviews of all the economic and other factors which affect a project of this nature and magnitude.

The newspaper nearest to the Colony Project, Rifle Telegram, boldly stated in large

Exxon had come to the oil shale industry with a bang in the summer of 1980 and, less than two years later, it went out the same way. The Colony closing, according to Colorado Governor Dick Lamm, represented "a devastating blow to the [Colorado] economy."

With the closing and purchase of Tosco's share, it was estimated that Exxon would have invested over \$1 billion in Colony.

As Exxon issued its press release announcing the termination of Colony's activities, world headlines focused on only one thing: WAR. Residents of Denver opened their Sunday May 2nd papers to read: *British Planes, Warships Pound Falklands as War Breaks Out,*\*\*Argentines Report British Invasion of Isles Repulsed.\*\* Despite the war, the main headline of the May 3rd \*\*Denver Post\*\* proclaimed "Exxon Will Close Shale Oil Project, Serious Blow to the Industry, [Gov.] Lamm says." Former Colorado Gov. John Vanderhoof called it "an absolute shocker." This action meant a loss of \$85 million in annual payrolls for Western Colorado as well as upwards of 4,100 jobs – and, including the ripple effect, 8,000 to 10,000 people impacted. It was a body blow to the area, particularly

after Exxon had paid \$300 million in 1980 to Arco for Arco's interest in the Colony project and had itself since 1980 invested \$400 million in engineering design and construction. Colorado officials were so concerned about the possibility of violence following the announcement locally that State Adjutant Gen. J.L. France was prepared to send National Guard troops to western Colorado. France alerted thirty security police from Buckley Air National Guard Base to be ready to be airlifted to Rifle, Colorado. He had also asked the Wyoming National Guard to place two C-130 cargo planes on standby to airlift additional troops, if necessary.

John Sawhill, first SFC chair, saw no reason to go against the tide causing so many projects to cease – the economics were simply not there. The best way to increase domestic crude oil supply was to raise the production of conventional energy sources by such means as enhanced recovery – increased use of new and improved technology in exploration and drilling, not federal assistance – from depleted oil fields and upgrade refinery capacity to handle heavier crude – the private market place, rather than the government, having the ability to increase the domestic supply of crude oil. Rep. Wright (D-TX), an ardent SFC booster, boldly stated, "We need to remind ourselves that corporate policy and national policy do not always coincide. What's good for Exxon is not necessarily good for the country." Rep. Wright's attitude toward the private sector stood in marked contrast to that of former Secretary of Defense Charles Wilson's, whose statement Wright inverted. Wilson had famously declared in his 1953 confirmation hearing, ". . .I thought that what was good for our country was good for General Motors, and vice versa."

Only three days after Exxon made its announcement, the SFC president, Vic Schroeder, was in Denver to address a symposium of synfuels experts from the Rocky Mountain states. Schroeder offered a well-rehearsed spin: "I tend to minimize the impact of its [Exxon's] decision on the [synthetic fuels] industry." Continuing his rationalization, he said, "the probability of renewed hostilities in the Middle East and the prospect of additional economic shocks are imminent. The rationale for the corporation [the SFC] was both strategic and economic." Not sure

if he had justified SFC's existence, "We [the SFC board] think that the development of this industry does do the Free World a service and furnishes an insurance policy against undue foreign influence in our economy and defense." In response to the increasing level of attacks on the mounting expenditures planned to help private industry, Schroeder testily replied, "We're not afraid of a fight. I'm in the job because of my attitude and experience."

The \$550 million Union Oil shale project in nearby Parachute Creek was not affected by Exxon's decision, and was "proceeding rapidly" and "on schedule." The chair of Union, Fred Hartley, stated, "Union is taking full financial responsibility for investment without recourse to the American taxpayers in the event the plant is unsuccessful. We are . . . fully confident our project will be a technical and economic success." In May 1982, Union's proposed project was about one-fifth the size of Colony and was backed by \$400 million in federal price supports.

In the May 2, 1982, press release, Randall Meyer, president of Exxon USA, stated, "Exxon still believes that alternate fuels such as shale oil will be required to meet future U.S. energy needs. . . . Exxon believes that the final cost [to build the plant] could be more than twice as much as we thought it would be when we entered the project. . . . [I]n our judgment, the investment economics no longer support our continuing to fund the present project." From 1980 to 1982, the average world price of crude oil had decreased about 9 percent, from \$37 per barrel to just over \$33 per barrel. Projections were that it would continue its downward trend. 69

In Tosco's 1980 proposal for financial assistance, plans were to build and operate a 48,300-barrel-per-day commercial oil-shale complex. Total costs at that time were estimated at \$3,434 million.<sup>70</sup> Exxon's new reported estimate of the total costs (including Tosco's 40 percent share) had escalated to between \$5 and \$6 billion or more.

Tosco did not then (nor does former senior management today) agree with Exxon's view that costs were significantly more than originally anticipated. Exxon had an inclination toward gold-plating and sloppy construction management. These tendencies were primarily the result of laziness by a huge company with virtually limitless capital. If you overspent, no one knew. If you built something that failed or did not live up to expectations, however, your future at Exxon was in serious doubt. Tosco, a mouse to Exxon's elephant, was much more sensitive and attentive to

costs.

John Lyon, Tosco senior executive and head of its oil shale operations, recalls the back-story to the announcement of Exxon's decision. During the week of April 26, 1982, Randall Meyer called Morton Winston, Tosco's chief executive, and Lyon to say that Meyer wanted to meet as soon as possible, personally with them, at their offices. They scheduled Friday, April 30, late in the day. Winston and Lyon speculated about the upcoming visit, knowing it had to be extremely important for the senior officer of Exxon USA to come in person late on a Friday afternoon. Meyer arrived with Lyon's counterpart at Exxon, Bob Larkins. Although Winston and Lyon had considered the possibility of a shutdown, they were still surprised by the news.

Meyer stated that Exxon's planning department had concluded there would be, within a year or two, a dramatic fall in the price of oil. Furthermore, Exxon thought the depressed price would continue for several years. As a result, Exxon had determined it was not a wise use of its capital to continue with oil shale development, and that it would stop funding its 60 percent share effective the next day, May 1. Winston and Lyon excused themselves to discuss Exxon's announcement. They returned, telling Meyer and Larkins that Exxon might as well cease funding

Tosco's 40 percent share as well, because Exxon now owned it. Meyer said Exxon figured that would be the response. Therefore, Exxon would promptly pay Tosco the \$382 million that Exxon owed under the "put" provision. Winston and Lyon commenced calling Tosco's directors for an emergency board meeting immediately after Meyer and Larkins left. 73 On Saturday, before the public announcement by Exxon, Lyon called Glenn Vawter – senior vice president of Tosco's shale operation – interrupting his son's birthday party. Lyon asked, "Are you sitting down?" Vawter sat down and Lyon told him "Exxon had pulled the plug and the Colony project was over." Tosco had an office in Denver with one hundred employees overseeing Colony. Vawter told them Colony was over and they no longer had jobs. On May 4, at 7:30 a.m., hundreds of men lined up to get their final paychecks. The exodus from Battlement Mesa began in earnest on the same day with families rushing to the First National Bank in Battlement Mesa to close out

accounts. Many began packing their belongings and pulling their children out of school – five weeks before the end of the school year. Some workers were just getting settled in and with their \$14.85-per-hour-pay had already purchased new cars, pick-ups, campers, and trailers. They had "no safety net." As one bulldozer operator stated, "We were making good money and buying what we wanted." A few weeks later, Vawter gave himself a pink slip.

Black Sunday continues to have ripple effects in the Grand Junction area, Jay Seaton, publisher of the *Daily Sentinel* of Grand Junction, commented as recently as June 26, 2012. In the newspaper's boardroom, hang two framed issues: May 3, 1982, and September 12, 2001.

Memories remain sharp for those who experienced that day. Several people are even able to describe where they were and what they were doing when they first received the closing-down news. The front page of the *Daily Sentinel* of May 3, 1982.



Following Exxon's announcement about shutting down the Colony Project, Chevron Oil announced it was suspending operations at its Clear Creek shale oil project. Standard Oil of Indiana did likewise for its Rio Blanco Oil Shale Corporation. Neither of these enterprises had sought federal financial assistance. Several other projects involving Occidental Petroleum Corporation, Tenneco, and Mobil Corporation were postponed as well.<sup>77</sup> Because the oil shale industry had been "stopped dead in

its tracks" by the Exxon decision, Mobil chair Rawleigh Warner proposed an oil shale consortium of about a dozen companies. Initial response appeared favorable, but enthusiasm quickly faded. Union Oil's oil shale project remained the only one still being built.<sup>78</sup>

One of the unintended consequences of Tosco constructing the Colony Project was a proxy battle with a Denver real-estate investor and developer, Kenneth Good. During 1981, Good had purchased a large number of Tosco shares, approximately 8.8 percent of those outstanding, which was sufficient to make him the largest shareholder. He was outraged over

Tosco's involvement with the Colony Project, in which costs had begun to spiral out of control, Good thought.

In April 1982, Good made his approach with a series of full-page ads appearing in the *New York Times*, the *Washington Post*, and other papers. Tosco quickly responded in kind with its own full-page advertisements. Each side vigorously attacked the other. Tosco headlined one ad with "Good will be Good for Good, But will Good be good for you?" Good is described as a "crapshooter" and a "gambler." Tosco referred to the Colony Project as the nation's "crucial first commercial shale production facility." Good countered that the Colony Project, in which Tosco owned 40 percent, had been cursed with endless time delays and continually escalating costs.

Tosco had a "put" option with Exxon whereby Tosco could sell its interest to Exxon, which Good estimated at \$450,000,000. Such a sale would inevitably enhance value to shareholders.

Good had labeled his investor group the "Tosco Stockholders Protective Committee."

Following Exxon's announcement that it was discontinuing the Colony Project, Tosco placed another full-page ad, titled "Bulletin, From Tosco Management." The management explained the Exxon decision and Tosco's put option, worth about \$380,000,000. With the net proceeds, the company intended to make a special shareholder distribution. Tosco regretfully acknowledged that "the discontinuance of Colony is a grave setback to the national program to launch a commercially viable synthetic fuels industry."

Good placed yet another full-page ad in major newspapers, headlined, "A Question of Business Judgment." With Exxon's exit, Good argued that his position had been proven correct. He

quoted a recent management letter stating, "The Colony Project is under excellent control. Costs are not out of control." And yet, according to Good, Exxon terminated the project three days later, saying that costs continued to escalate and market conditions did not justify such a large investment. At the May 11, 1982, Tosco shareholder meeting, Good's slate of five directors was defeated by management's slate, with a 5-to-3 margin.