

INTRODUCTION

Nielson is selling its 47.56% WI (38.14% NRI) in the House Creek Sussex Unit and its 50.0% WI (40.0% NRI) in two wells located inside the Unit boundary but completed in a non-unitized zone. The Properties are in southwestern Campbell County, Wyoming. Included are 87 producing wells, 84 water injection wells, four water source wells and 36 inactive wells. There are also nine Proved Behind Pipe opportunities and 23 Proved Undeveloped drilling locations. Production is from the **Sussex** formation at an average depth of 8,200' and the **Parkman** at about 7,200'. The field was discovered in 1968 and the Sussex was unitized for secondary recovery operations in 1987. The Unit comprises 24,100 gross acres. Projected July 2010 gross monthly production is 20,000 bbls (7,700 bbls net). The wells have made approximately 27 million bbls and 18 BCF. The producing wells are listed on the One Line Summary beginning on page 11. Devon is the operator.

PROVED DEVELOPED PRODUCING RESERVES

Gross Proved Developed Producing reserves are estimated to be **3.4 million bbls (1.3 million bbls net)**. Reserves for the Sussex Unit wells are estimated based on decline curve analysis.

In January 2010 Devon and Nielson recompleted two idle Unit wells to the shallower **Parkman** formation. Following fracture stimulation, the **HCP #65-3** (SWSE Sec 14 T44N R73W) stabilized, pumping 23 bbls of oil and 168 bbls of water per day. The **HCP #72-3** (NESENE Sec 22 T44N R73W) initially pumped 20 to 25 bbls of oil and 260 bbls of water per day after fracturing, but gas locking and debris in the pump have caused production to be erratic. Initial production rates of 23 BOPD for the 65-3 and 18 BOPD for the 72-3 were used for projection of the wells' reserves in the accompanying economics. Production was forecasted using a type curve developed from 45 vertical Parkman wells in the area of House Creek Field. The type curve parameters are an initial decline rate of 55% with a hyperbolic exponent of 2.5 and a terminal exponential decline of 5%.

PROVED DEVELOPED NON-PRODUCING (BEHIND PIPE) RESERVES

Total gross Proved Non-Producing (Behind-Pipe) reserves of 730,000 bbls (176,000 bbls net) are estimated from recompletions of five inactive wells and reentry of four plugged and abandoned wells to the **Parkman** formation. Gross reserves for each of the recompletions (82,000 bbls) are estimated by applying the type curve described in the Proved Producing section to an initial production rate of 27 bbls of oil per day, based on the average initial rate of the type curve wells. Gross capital expenses scheduled are \$250,000 per recompletion, \$285,000 for each of three reentries and \$425,000 for one reentry that requires production casing. These costs

include the surface facilities needed to isolate the non-unitized Parkman production from the Sussex Unit production.

Net pay was calculated using logs of 26 vertical Parkman producers in nearby fields. A correlation of net pay thickness to EUR however, was inconclusive, so the type curve was used to estimate reserves for all recompletions. Because few of the producers examined had less than 10' of net pay, logs of wells proposed for recompletion were reviewed to ensure they have at least 10' of net pay. 160-acre well spacing was used to minimize the potential for interference between wells.

Under the terms of the Unit Operating Agreement, Nielson or the buyer has the right to take over operations and recomplete inactive unit wells. Devon has filed Notices of Intent to Recomplete the 57-1 and 53-1 with the WOGCC. These first two recompletions are scheduled for October 2010 in the accompanying economics. The remaining seven recompletions are scheduled beginning January 2011 at one per month. A list of the recompletions, their locations, interests, status and estimated capital expenditures follows:

Recompletion & Reentry Candidates					
Well	Location	WI (%)	NRI (%)	Status	CapEx (\$M)
Whipple 6-1	SWNW Sec 18-45N-73W	6.25	5.02	P&A	285
HCP 10-2	NESW Sec 18-45N-73W	6.25	5.02	SI INJ	250
HCP 27-1	SWSW Sec 27-45N-73W	6.25	5.02	SI INJ	250
HCP 47-1	E/2SE Sec 5-44N-73W	62.50	50.16	SI INJ	250
HCP 75-1	CSW Sec 22-44N-73W	50.00	40.00	SI INJ	250
HCP 76-1	NESE Sec 22-44N-73W	50.00	40.00	SIOW	250
Marquis 1	SWNW Sec 25-44N-73W	25.00	20.00	D&A	425
HCP 57-1	SWSE Sec 9-44N-73W	50.00	40.00	TA*	285
HCP 53-1	SWNE Sec 9-44N-73W	12.50	10.00	TA*	285

*Devon has filed Notice of Intent to Recomplete to the Parkman with the WOGCC

PROVED UNDEVELOPED RESERVES

The **Parkman** reservoir underlies virtually all of House Creek Field and Nielson owns Parkman rights (HBP) under 5,180 gross acres (2,230 net acres). The map on page 33 shows where these rights are owned. **Proved Undeveloped** reserves are estimated for **23 locations** on 160-acre spacing that have active Sussex Unit wells (a producer or injector) for which no Proved Behind Pipe reserves are assigned in the Parkman. Total estimated **gross Proved Undeveloped reserves** are **1.9 million bbls (580,000 bbls net)**. Based on the type curve previously described and an initial rate of 27 bbls of oil per day (the average of the wells used in the type curve), per well reserves are 82,000 bbls. Gross drilling, completion and surface facility costs of \$875,000

per well are included. Drilling is scheduled to begin in July 2011 and proceed at two wells per month until all the locations are developed. *Since the reservoir is not unitized, Nielson or the buyer can operate many of the development locations.* Following is a list of the locations and interests:

Proved Undeveloped Locations			
PUD Name	Location	WI (%)	NRI (%)
Sec 18 NE PUD	NWNE Sec 18-45N-73W	50.00	40.13
Sec 18 SE PUD	CSE Sec 18-45N-73W	75.00	60.19
Sec 30 NE PUD	CNE Sec 30-45N-73W	12.50	10.03
Sec 30 SE PUD	CSE Sec 30-45N-73W	12.50	10.03
Sec 29 NW PUD	CNW Sec 29-45N-73W	12.50	10.03
Sec 29 NE PUD	CNE Sec 29-45N-73W	6.26	5.02
Sec 29 SE PUD	CSE Sec 29-45N-73W	4.70	3.76
Sec 4 NW PUD	CNW Sec 4-44N-73W	37.50	30.06
Sec 4 SW PUD	CSW Sec 4-44N-73W	50.00	40.13
Sec 4 SE PUD	CSE Sec 4-44N-73W	100.00	78.63
Sec 4 NE PUD	CNE Sec 4-44N-73W	25.00	20.63
Sec 8 NE PUD	CNE Sec 8-44N-73W	50.00	40.13
Sec 10 NW PUD	CNW Sec 10-44N-73W	37.50	30.00
Sec 15 NW PUD	CNW Sec 15-44N-73W	12.50	10.03
Sec 16 NE PUD	CNE Sec 16-44N-73W	50.00	40.13
Sec 16 NW PUD	CNW Sec 16-44N-73W	50.00	40.13
Sec 16 SW PUD	CSW Sec 16-44N-73W	50.00	40.13
Sec 21 NE PUD	CNE Sec 21-44N-73W	12.50	10.03
Sec 21 SE PUD	CSE Sec 21-44N-73W	50.00	40.00
Sec 22 NW PUD	CNW Sec 22-44N-73W	31.25	25.02
Sec 23 SE PUD	CSE Sec 23-44N-73W	50.00	40.00
Sec 25 SE PUD	CSE Sec 25-44N-73W	50.00	40.13
Sec 27 NE PUD	CNE Sec 27-44N-73W	50.00	40.13

ADDITIONAL UPSIDE POTENTIAL

PARKMAN

Full development of the Parkman reservoir on 80-acre spacing would add approximately 24 locations with estimated **gross reserves of 1.4 million bbls (450,000 bbls net)**. The estimated reserves are based on recovering 60,000 bbls from each well rather than the 82,000 bbls used for

each initial well. Downspacing would significantly accelerate the recovery of Parkman reserves. ***No value has been placed on 80-acre development of the Parkman.***

Drilling of horizontal Parkman wells in House Creek Field (to the north and west of the Unit) started in August 2004. To date, 52 such wells have been drilled. In January 2010 the wells made 38,000 bbls of oil and 54,000 bbls of water and their cumulative production is over 3.1 million bbls of oil. The average EUR of these horizontal wells is 190,000 bbls. The drilling pattern is two northeast-southwest oriented horizontal laterals (average lateral length of 4,100') per section. ***No value has been ascribed herein to this horizontal potential.***

The economics of Parkman development (on either 80-acre or 160-acre spacing) would be drastically improved by forming a fieldwide unit to include both the Sussex and Parkman zones. Drilling would be minimized. Development of the Parkman could be accomplished by commingling zones in existing Unit wells. Construction of surface facilities for each lease would not be necessary. Waterflood and EOR operations could be optimized by using common infrastructure, surface facilities and wellbores.

EOR

There are currently five active CO₂-EOR projects in Wyoming. The following table lists the fields, reservoirs, operators and dates the projects started:

Active CO₂-EOR Projects in Wyoming			
Field	Reservoirs	Operator	Project Start Date
Beaver Creek	Madison	Devon	July 2008
Lost Soldier	Tensleep, Darwin-Madison, Cambrian	Merit	1989
Patrick Draw	Almond	Anadarko	September 2003
Salt Creek	Wall Creek	Anadarko	January 2004
Wertz	Tensleep, Darwin-Madison	Merit	1986

These projects clearly demonstrate that additional oil can be recovered economically when adequate supplies of CO₂ are available. The projects are estimated to recover an incremental 8% to 15% of OOIP.

The Enhanced Oil Recovery Institute (EORI) at the University of Wyoming compiled a list of the top 100 ranked reservoirs for potential miscible CO₂ flooding in Wyoming. ***The House Creek Sussex reservoir is listed at number 18.***

A DOE Rocky Mountain Region study (*U.S. Department of Energy, Advanced Resources International. Basin Oriented Strategies for CO₂ Enhanced Oil Recovery: Rocky Mountain Region, Feb 2006*) states that 1.38 billion bbls of incremental oil is technically recoverable from 66 Wyoming reservoirs. The House Creek Field Sussex reservoir is included on the list. The study concludes that oil prices above \$40/bbl make these technically-recoverable reserves

economically recoverable. Using a conservative recovery factor of 10% of original-oil-in-place (150 million bbls), EOR could add **15 million barrels gross (6 million bbls net)** to the House Creek Unit Sussex reserves. Following a successful waterflood, an EOR project in the **Parkman** reservoir would increase recovery and benefit from very low capital investment for infrastructure.

Although supplies of CO₂ are not currently accessible to House Creek Field, Encore Acquisition Company (now Denbury Resources) in July 2009 announced a planned pipeline to transport CO₂ from the Lost Cabin Field in northwestern Fremont County, Wyoming to Bell Creek Field in Powder River County, Montana. The proposed route is through or very near the north end of House Creek Field. This project can potentially provide access to CO₂ for EOR.

**BONANZA, HOMESTEAD, PHEASANT AND RATTLESNAKE FIELDS
BIG HORN, JOHNSON AND WASHAKIE COUNTIES, WYOMING
NIELSON & ASSOCIATES, INC. AND LEGACY RESERVES L.P.**

INTRODUCTION

Nielson is selling its interest in 19 producing wells and one Proved Behind Pipe opportunity in four Wyoming fields. Included in the sale are 1,000 gross (440 net) acres in **Bonanza Field** in Big Horn County, 260 gross acres (100 net) in **Pheasant Field** in Johnson County, 1,540 gross acres (510 net) in **Homestead Field** in Big Horn County and 160 gross acres (130 net) in **Rattlesnake Field** in Washakie County. All of the acreage is HBP except 1,220 gross and 450 net acres in Homestead Field. Production is from the **Phosphoria, Tensleep** and **Minnelusa** formations at depths ranging from 2,530' to 15,170'. Projected July 2010 gross monthly production is 7,400 bbls (2,000 bbls net). The wells have made approximately 22.8 million bbls. The One Line Summary beginning on page 11 lists the wells and interests for sale. Nielson and Associates operates all but the Homestead Field properties, where Legacy Reserves L.P. has recently assumed operations.

PROVED DEVELOPED PRODUCING RESERVES

Total **Gross Proved Developed Producing reserves** are estimated to be **1.9 million bbls (480,000 bbls net)** based on decline curve analysis.

Bonanza Field has 14 wells producing from the Tensleep formation between the depths of 2,530' and 2,930'. **Gross Proved Developed Producing reserves** are estimated to be **710,000 bbls (260,000 bbls net)**. The wells have made 21.1 million bbls and projected July 2010 gross monthly production is 3,000 bbls (1,100 bbls net). A list of the wells and the interests being sold can be seen in the one-line summary that begins on page 11.

Three wells produce from the Tensleep zone at a depth of 4,500' in **Homestead Field**. **Gross Proved Developed Producing reserves** are estimated to be **1.1 million bbls (170,000 bbls net)**. Cumulative production is 910,000 bbls. It is estimated that the wells will make 3,600 bbls gross (580 bbls net) in July 2010.

The Tenneco Govt 2607-A #3 produces from the Phosphoria formation at 10,700' in **Rattlesnake Field**. Estimated **gross Proved Developed Producing reserves** are **32,000 bbls (22,000 bbls net)**. The well has made 370,000 bbls and is projected to produce 250 bbls gross (170 bbls net) in July 2010.

Gross Proved Developed Producing reserves are estimated to be **110,000 bbls (33,000 bbls net)** for the Pheasant Fee #2-18 located in **Pheasant Field**. The well is completed in the Minnelusa "D" formation at a depth of 15,100'. It has made 450,000 bbls and estimated gross production for July 2010 is 540 bbls (170 bbls net). Two other Nielson-operated wells in the field are shut in.

PROVED DEVELOPED NON-PRODUCING RESERVES

Gross Proved Behind Pipe reserves are estimated to be **41,000 bbls (13,000 bbls net)**. Three wells in Pheasant Field have produced from the **Minnelusa “C”** sandstone. The **Pheasant Fee #2-18** (NE/4 Sec 18 T45N R80W) is only completed in the Minnelusa “D” dolomite, about 100’ deeper than the “C”. The Shell Pheasant #32X-13 (NE/4 Sec 13 T45N R81W) made 49,000 bbls, the Samson Pheasant #2-19 (NWNE Sec 19 T45N R80W) produced 41,000 bbls and the Samson Pheasant #4-18 (NWSE Sec 18 T45N R80W) made 101,000 bbls, all from the Minnelusa “C”. Based on log analogy, the Pheasant #2-18 should perform most like the Pheasant #2-19 and, therefore gross reserves are estimated to be 41,000 bbls. Also based on analogy, initial gross production of 800 bbls per month was used and it is forecasted to decline exponentially at 20% per year. The Minnelusa “C” is scheduled to be commingled with the current Minnelusa “D” completion in July 2011. The estimated gross cost of the workover is \$100,000.

ADDITIONAL UPSIDE POTENTIAL

Several wells have recovered oil during DSTs of the **Phosphoria** formation in **Bonanza Field**. This potential pay zone is about 200’ above the producing Tensleep reservoir. No wells in the field have produced from the Phosphoria and the nearest production from the zone is in the Manderson field located five miles to the northwest where 50 wells have produced 3.0 million bbls. Because recompletions to shallower zones can be done cheaply, the Phosphoria should be tested in the Bonanza Field.

The **Minnelusa** is well-known as a successful target for waterfloods in the Powder River Basin. Reno Field, located four miles southeast of **Pheasant Field** and at about the same depth (15,100’), has been under waterflood since 1992. Recovery under primary operations was estimated to be only about 5.5 million barrels (18% of OOIP). Under waterflood operations, cumulative recovery is already over 12.3 million bbls (39% of OOIP) and it continues to make over 20,000 bbls per month. Pheasant Field has recovered over a million bbls of primary oil from the Minnelusa. Using Reno Field’s 1.2 barrels of secondary recovery for each barrel of primary, potential secondary recovery at Pheasant Field is **1.2 million bbls**.

The sale includes two idle wellbores in Pheasant Field that can be used for water supply and injection. One of these wells, the Pheasant 4-18 is capable of producing about 3 bbls of oil and 16 bbls of water per day (its last rate in June 2001). Unidraulic pump equipment is still on the well and in working condition. In order to produce the well a land title issue must be cured.

Legacy Reserves, operator of **Homestead Field**, has initiated efforts to unitize the field for a waterflood of the **Tensleep** formation. In the past 24 months the working interest owners have jointly acquired leasehold to prepare for unitization proceedings later this year. In addition, the WOGCC has granted aquifer exemption for injection into the Tensleep in the Gifford #1 well (currently P&A’d).

INTRODUCTION

Nielson is selling its 6.5% WI (4.7% NRI) in the Calumet Cottage Grove Sand Unit in Canadian County, Oklahoma. The Unit was formed in 1992 to enable waterflood operations in the **Cottage Grove Sand** at a depth of 8,200'. The Unit comprises 11,440 gross acres and has approximately 105 currently-active wells. The Unit outline and well locations are shown on the map on page 271. Projected July 2010 gross monthly production is 14,800 bbls (680 bbls net). Cumulative production is 9.9 million bbls. Quantum Resources is the operator.

PROVED DEVELOPED PRODUCING RESERVES

Gross Proved Developed Producing reserves are estimated to be **1.2 million bbls (54,000 bbls net)**. Reserves are based on decline curve analysis.

ADDITIONAL UPSIDE POTENTIAL

Cottage Grove Sand

In late 2009 the Unit owners acquired an inventory of production and injection tubing that will be used to lower historically high costs of tubing repairs. Encore Acquisition Company's reservoir and production engineer reviewed recoveries and estimated significant reserves (400,000 bbls or more) can be added on the Unit's south end by drilling at least two wells, performing one or two conversions to water injection and stimulating or repairing several producers. Encore was Unit operator until merging with Denbury Resources in late 2009 and subsequently selling to Quantum Resources effective May 2010. Because Quantum recently took over Unit operations, it is not known whether this work will be done in the near future, therefore it is not included in Proved reserves.