

# LISKOW & LEWIS

A Professional Law Corporation

822 Harding Street  
Post Office Box 52008  
Lafayette, LA 70505  
(337) 232-7424 Main  
(337) 267-2399 Fax

www.liskow.com

One Shell Square  
701 Poydras Street, Suite 5000  
New Orleans, LA 70139  
(504) 581-7979 Main  
(504) 586-4108 Fax

First City Tower  
1001 Poydras Street, Suite 1800  
Houston, TX 77002  
(713) 651-2900 Main  
(713) 651-2908 Fax

March 19, 2008

Richard W. Revels, Jr.  
rwrevels@liskow.com

Honorable James H. Welsh  
Commissioner of Conservation  
Office of Conservation  
P. O. Box 94275  
Baton Rouge, LA 70804-4275

Re: Commingling Application  
Black Bay Commingling Facility No. 1 (914550)  
6900 RA SUA; SL 18652 No. 1 Well (SN 236476, LUW 615089), Lake Campo Field  
9450 RA SUA; SL 195 QQ No. 116 Well (SN 236349, LUW 050134) and  
7100 RA SUA (future recompletion), West Black Bay Field

Dear Commissioner Welsh:

Application is hereby made on behalf of **HELIS OIL & GAS COMPANY, L.L.C.** for the calling of a public hearing after legal notice to consider the following matters:

1. To permit the applicant to commingle production from the 6900 RA SUA, Lake Campo Field, established by Office of Conservation Order No. 571-J, effective August 14, 2007, and from the designated unit well, the State Lease 18652 No. 1 Well, and any future wells, at its Black Bay Commingling Facility No. 1, in the West Black Bay Field, Plaquemines Parish, Louisiana, by use of monthly well tests in the manner described in the narrative and shown on the schematic attached hereto and made a part hereof.
2. To permit the applicant to commingle production from the 9450 RA SUA, West Black Bay Field, established by Office of Conservation Order No. 437-S, effective August 14, 2007, and from the designated unit well, the State Lease 195 QQ No. 116 Well, and any future wells, at its Black Bay Commingling Facility No. 1, in the West Black Bay Field, Plaquemines Parish, Louisiana, by use of well tests in the manner referenced above at Item 1.
3. To permit the applicant to commingle production from the 7100 RA SUA, West Black Bay Field, established by Office of Conservation Order No. 437-R, effective July 24, 2007, and any future wells, at its Black Bay Commingling Facility No. 1, in the West Black Bay Field, Plaquemines Parish, Louisiana, by use of well tests in the manner referenced above at Item 1.

This unit is identical to the 9450 RA SUA, and the operator plans to recomplete the State Lease 195 QQ No. 116 Well into this interval once it depletes in the deeper interval.

4. To grant such exceptions to Statewide Order No. 29-D-1 as are required by the proposed procedure and to grant such additional authority and approval that may be needed for such procedure.
5. To consider such other matters as may be pertinent.

It is the opinion of Helis Oil & Gas Company, L.L.C. ("Helis") that the use of well tests for allocation of production in the manner proposed will provide reasonably accurate measurement, will not create inequities, and will afford the owner of any interest the opportunity to recover his just and equitable share of production. Helis was unable to obtain 100% approval from the interested parties; and therefore, is requesting this matter to be set for hearing.

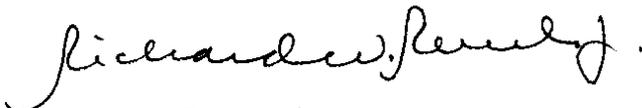
Attached hereto and made a part hereof are:

- a) Narrative explanation of the manner in which commingling will be accomplished
- b) Commingling Schematic
- c) List of Interested Owners, Represented Parties, Interested Parties

Copies of this application with attachments are being mailed to all interested parties, the Commissioner of Conservation and to the Lafayette District Manager of the Office of Conservation. Finally, enclosed is our check on behalf of the applicant, Helis Oil & Gas Company, L.L.C., in the amount of \$2,265.00 made payable to the Office of Conservation and representing the required application fee.

Sincerely,

LISKOW & LEWIS



Richard W. Revels, Jr.

RWRjr:dbf  
Attachments  
214985\_1  
35402.0209

cc: Mr. Richard Hudson, Lafayette District Office of Conservation  
cc: All parties on attached list

**EXPLANATION OF FLOW OF GAS AND LIQUID HYDROCARBONS  
BLACK BAY CF NO. 1 (#914550)  
ADDITION OF 7100' ZONE, RESERVOIR A AND 9450' ZONE RESERVOIR A  
(S.L. 195 QQ WELL NO. 116, WEST BLACK BAY FIELD); AND  
6900' ZONE RESERVOIR A (S.L. 18652 WELL NO. 1, LAKE CAMPO FIELD)**

**Page 1 of 5**

**3/12/08**

**EXISTING COMMINGLING PROCESS**

All production flows to one of the following facilities for testing: North Black Bay ("NBB") Facility, West Black Bay ("WBB") Facility, and Black Bay Central Facility, a/k/a Black Bay CF No. 1 ("BBCF No. 1"). After testing, oil and gas production is measured for sales at BBCF No. 1. One additional future gas sales point (high pressure gas from North Black Bay Field) may be added at the NBB Facility; all as further described herein, and as shown on the Commingling Diagram. Allocation of production is by monthly well tests. At each facility all separators are equipped with an orifice meter for gas measurement and turbine meters for liquids measurement. All orifice gas meters are calibrated quarterly and all liquid turbine meters are calibrated monthly.

**ADDITION OF 6900 RA SUA; SL 18652 WELL NO. 1**

Production from the 6900 RA SUA; SL 18652 Well No. 1 (SN 236476), Lake Campo Field, will flow full well stream to the NBB Facility, where it will flow to the test and bulk manifolds as further described below.

**NBB FACILITY**

All North Black Bay Field wells, and this one Lake Campo Field well, flow to the NBB Facility and then to test and bulk manifolds. All high-pressure (HP) and low-pressure (LP) wells are isolated and tested monthly in three-phase test separators. There are three separators on the NBB Facility, one two-phase LP bulk separator, one three-phase HP/LP test separator, and one three-phase HP bulk/test separator.

When not in test, flow from a LP well is routed from the manifold to the two-phase LP bulk separator where the gas and liquids are separated. The LP gas is metered and routed to a pipeline where it commingles with LP gas from the WBB facility and flows to the BBCF No. 1 facility where commingled LP gas is compressed and metered for gas lift supply, fuel, or sales. The bulk LP liquids (oil and water together) from the NBB two-phase bulk separator are pumped and routed to a pipeline where it commingles with LP liquids from the WBB facility and flows to the BBCF No. 1 facility where the commingled oil is further treated, metered and sold.

During a LP well test at the NBB facility, the LP well will be routed to the three-phase HP/LP test separator at LP settings. The gas, oil and water will be separated and metered. The test gas will be combined with the gas flow from the two phase separator and routed as described in the previous paragraph. The oil and water will be merged and combined with the bulk production downstream of the two phase separator and routed as described in the previous paragraph. The well test period will be for a minimum of 4 hours stabilized flow, at least once per month. Only this type of test will be utilized on LP wells for production allocation purposes on the NBB facility.

When not in test, flow from a HP well is routed from the NBB facility manifold to a three-phase HP bulk/test separator where the gas, oil and water are separated. The HP gas is metered and routed through the NBB dehydrator for use as gas lift supply, fuel, or to be transported to BBCF No 1 in a bi-directional gas line for sales. The oil dumps from the HP separator, passes through a turbine meter and recombines with the water that is separately dumped and metered at the HP separator. These recombined liquids commingle with other NBB liquids downstream of the two-phase LP bulk separator.

There are three separators on the NBB Facility and there is no room remaining on this facility to add another separator. There is more than one HP well flowing to the platform. Therefore, in order to test a HP well, both of the three-phase separators will have to be utilized in HP mode, one for the test well and one for the other HP production. Note that in the case of no more than two HP wells flowing to the NBB Facility, and since both three-phase separators are designed to be test separators, both HP wells could be tested simultaneously, utilizing the two independent separators. The two-phase LP bulk separator will have to be utilized for the bulk LP production. Therefore, during a HP well test, there is no available LP separator for the HP test oil to dump to for measurement at LP. So, during a HP well test at the NBB facility, a HP well will be routed to the three-phase HP/LP test separator at HP settings. The gas, oil and water will be separated and metered at HP and a HP sample of the tested oil will be taken from the separator by a third party technician during that test period. The HP oil sample will be taken from the oil dump line of the separator, upstream of any dump valve or control valve on that line, all in accordance with API Manual of Petroleum Measurement Standards, Chapter 20, Allocation Measurement, Section 1. The HP test gas, oil and water will then be routed as described in the previous paragraph. Notably, the sampled HP test oil will be sent to a third party laboratory to determine the oil shrinkage and flash gas volume factors to be applied to the metered gas and oil volume measurements taken at HP during the well test for calculation of the final test values. The laboratory will determine the HP to LP shrinkage and flash at a pressure equal to the NBB facility LP system. The well test period will be for a minimum of 4 hours stabilized flow, at least once per month. Only this type of well test will be utilized for HP production allocation purposes on the NBB facility.

**ADDITION OF 9450 RA SUA; SL 195 QQ WELL NO. 116**

Production from the 9450 RA SUA;SL 195 QQ Well No. 116 (SN 236349), West Black Bay Field, will flow full well stream to West Black Bay C.B. (WBB Facility), where it will flow to the test and bulk manifolds as further described below. Note: a future re-completion for said well will be in the 7100 RA SUA, which covers the same lease acreage.

**WBB FACILITY**

West Black Bay Unit Wells (West Black Bay Field) and SL 195 QQ CB Wells (Lake Campo Field, North Black Bay Field, and West Black Bay Field) flow to the WBB Facility and then to test and bulk manifolds. All wells are isolated and tested monthly in one of four three-phase LP test separators. There are no HP wells or HP separators at the WBB Facility.

When not in test, flow from a well is routed from the manifold to a two-phase LP bulk separator where the gas and liquids are separated. The gas is routed to a pipeline where it commingles with LP gas from the NBB facility and flows to the BBCF No. 1 facility where commingled gas is compressed and metered for gas lift supply, fuel, or sales. The bulk liquids (oil and water together) from the WBB two-phase bulk separator are pumped and routed to a pipeline where it commingles with liquids from the NBB facility and flows to the BBCF No. 1 facility where the commingled oil is further treated and sold.

During a well test at the WBB facility, the well will be routed to one of four three-phase LP test separators. The gas, oil and water will be separated and metered. The test gas will be combined with the gas flow from the two phase separator and routed as described in the previous paragraph. The oil and water will be merged and combined with the bulk liquid production downstream of the two phase separator and routed as described in the previous paragraph. The well test period will be for a minimum of 4 hours stabilized flow, at least once per month. Only this type of test will be utilized on wells for production allocation purposes on the WBB facility.

**BBCF NO. 1**

The BBCF No. 1 consists of testing, processing and sales metering equipment that serves all of the Helis operated Black Bay area fields. Helis' Black Bay area facilities have the facility processes, well testing and sales metering electronically monitored and controlled via a "human-machine interface" (HMI) system based at the manned BBCF No. 1. This HMI system, brand named "Wonderware", allows operators to, among other things, initiate well tests from a control room and have that test data recorded, calculated and reported under controlled parameters, including duration. The HMI is programmed to limit any well

test duration to a maximum of 48 hours total. All well tests are recorded in an electronic well test history file and the data is utilized at the end of each month to allocate to each well its proportionate share of the total oil, gas and water produced from the fields that month, based on the well tests.

Low-pressure gas from NBB Facility, WBB Facility, East Black Bay Field Satellite Wells, Southeast Black Bay Field Satellite Wells, and Black Bay Field (a/k/a South) Satellite Wells is delivered to BBCF No. 1 where it is compressed and dehydrated for use as gas lift gas for oil wells throughout Black Bay, for fuel and for sales. Net gas sales are via purchaser's orifice meter to Texas Southeastern Pipeline Company. Compressor scrubber liquids are routed to the wet oil tank without metering since the volume is considered negligible.

Bulk oil and water from NBB Facility, WBB Facility, East Black Bay Field Satellite Wells, Southeast Black Bay Field Satellite Wells, and Black Bay Field (a/k/a South) Satellite Wells is delivered to BBCF No. 1 where it is separated in one of four free-water knock-out (FWKO) vessels on the facility. The oil is further conditioned in the heater treater vessel and routed to sales. The produced water is treated and routed to re-injection facilities in West Black Bay Field for disposal.

Saleable oil production from said facilities and wells is monitored and metered at a LACT unit by a positive displacement meter. The LACT unit meter is proved each month by routing the metered volume to a calibrated prover loop. In the event that excess BS&W is detected, the production is routed back to the commingled production processing equipment for reconditioning. When merchantable oil is achieved, normal operations will continue delivering crude oil through the LACT unit to Harvest Pipeline.

During a test of East Black Bay Field Satellite Wells, Southeast Black Bay Field Satellite Wells and Black Bay Field (a/k/a South) Satellite Wells at the BBCF No. 1, production from the individual well being tested is routed to one of three three-phase LP test separators where the oil, gas and water are separated and metered. The test gas is then commingled with other Black Bay gas into a common suction line for compression. The test oil is then commingled with other Black Bay oil in a heater treater for further treatment for sales.

Production from SL 17620 No. 1, Pelican Point Field, is routed to a dedicated three-phase, HP separator located on the BBCF No. 1. This vessel is equipped with an orifice meter for gas measurement and turbine meters for liquids measurement. HP gas from this well will bypass compression and route directly to the Black Bay dehydration system where it commingles with other Black Bay gas for gas lift supply, fuel or sales. The oil is dumped from the HP separator to the wet-oil tank, where it is commingled with other LP Black Bay oil and further treated for sales.

During a S.L. 17620 No. 1 well test, the facility operator will set the test parameters and activate the HMI well test mode on the well's dedicated three phase HP separator to record metered data during the well test. The gas, oil and water will be separated and metered at

HP and a HP sample of the tested oil will be taken from the separator by a third party technician during that test period. The HP oil sample will be taken from the oil dump line of the separator, upstream of any dump valve or control valve on that line, in accordance with API Manual of Petroleum Measurement Standards, Chapter 20, Allocation Measurement, Section 1. The HP test gas, oil and water will then be routed as described in the previous paragraph. Notably, the sampled HP test oil will be sent to a third party laboratory to determine the oil shrinkage and flash gas volume factors to be applied to the metered gas and oil volume measurements taken at HP during the well test for calculation of the final test values. The laboratory will calculate the HP to LP shrinkage and flash at a pressure equal to the BBCF No. 1 facility LP system. The sample is taken by a third party technician and the sample date is documented on the chain of custody record and on the lab analysis report. The lab analysis results are obtained and used in the final well test calculations prior to that test being utilized for monthly production allocation. The well test period will be for a minimum of 4 hours stabilized flow and will not exceed 48 hours duration. The well will be tested at least once per month. Only this type of well test will be utilized for S.L. 17620 No. 1 production allocation purposes on the BBCF No. 1 facility.

### **ALLOCATION OF OIL AND GAS PRODUCTION**

Gas production will be allocated to individual wells based on monthly well tests as a proportion of total gas production. Total gas production is the summation of sales, compression fuel, other fuel and vented gas. SL 17620 Well No. 1, Pelican Point Field, will share in other distributed fuel and vented gas charges based on its fraction of total production. If the SL 17620 Well No. 1 well pressure declines to where it needs gas lift and requires compression of the full well stream, its full test measurement will share in distributed compression fuel.

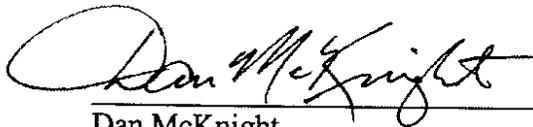
Oil production will be allocated to all wells, based on monthly well tests, as a proportion of total crude oil sales.

**STATEMENT OF APPLICANT REGARDING ACCURACY OF  
MEASUREMENTS IN CONNECTION WITH  
COMMINGLING OF HYDROCARBONS**

**BLACK BAY COMMINGLING FACILITY NO. 1 (#914550)  
3/12/08**

In the opinion of the applicant, the commingling of gas and/or liquid hydrocarbons and the use of monthly well tests and orifice and turbine meters for allocation of production in the manner proposed, will provide reasonably accurate measurement, will not create inequities, and will afford the owner of any interest the opportunity to recover his just and equitable share of the reservoir content. Liquid meters covered by this application will be a proved commercially available type. Moreover, suitable means for calibrating each liquid meter are provided, such that the accuracy of each meter in operation can be proved. Well testing will be done at least monthly, and at such other times as the Commissioner of Conservation, or his agent shall deem proper.

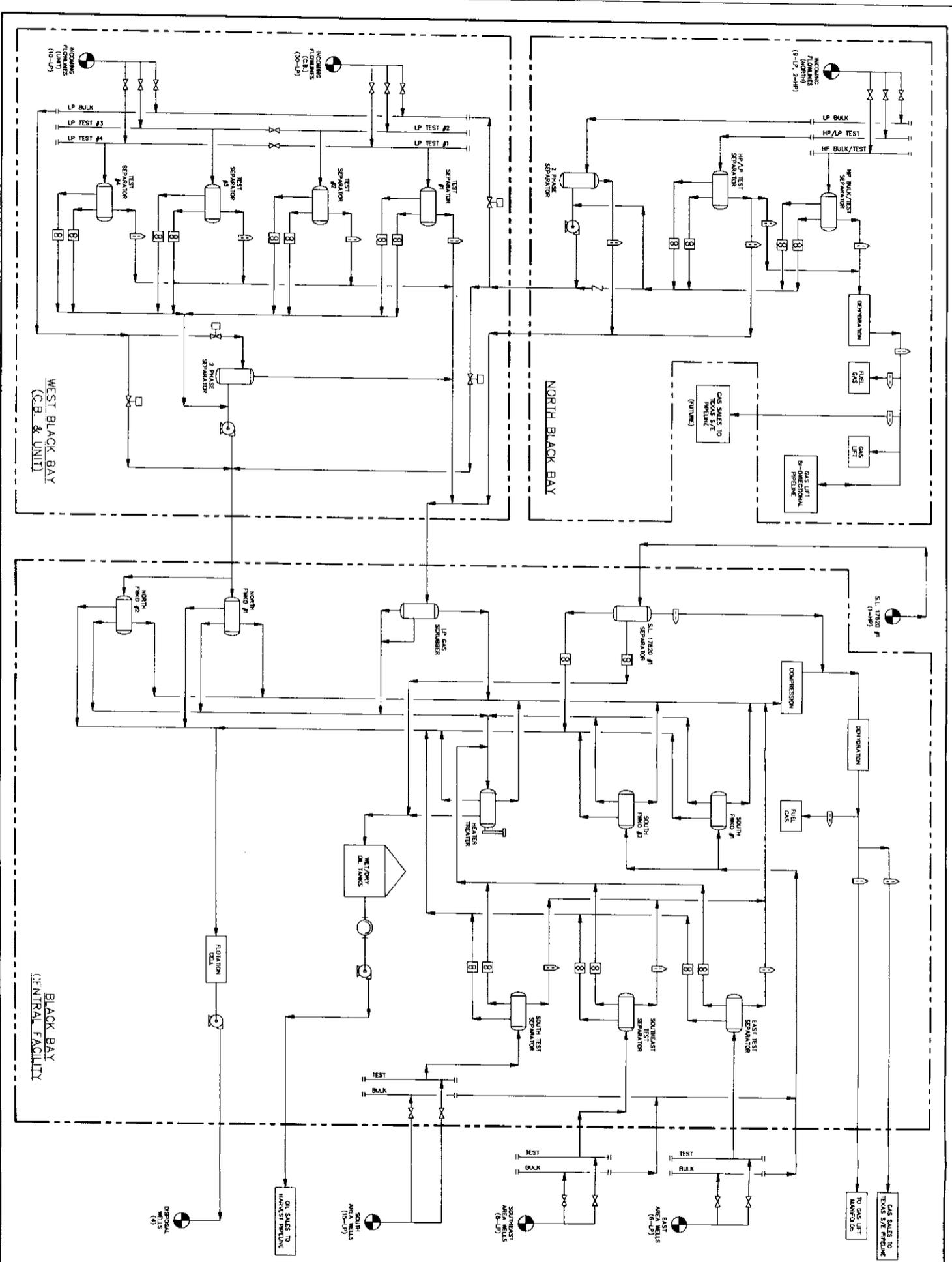
Signed:



Dan McKnight  
Production Manager  
Helis Oil & Gas Company, L.L.C.

Date:

3/12/08



**HELLIS**  
OIL & GAS

BLACK BAY FIELD  
COMMERCIAL DRAWING

**AUDUBON ENGINEERING**  
110 Veterans Blvd., Suite 400  
Melrose, Louisiana 70005 Phone: (504) 833-5893

NO.	DATE	BY	CHKD.	DESCRIPTION

DESIGNED BY	DATE	APPROVED BY	DATE
DRAWN BY	DATE	CHECKED BY	DATE
CHECKED BY	DATE	SCALE	
PROJECT NO.		DRAWING NO.	