Budget Bureau No. 42-R358.1.
Approval expires 11-30-49.

Form 9-331a
(March 1942)

(SUBMIT IN TRIPLICATE)

Land Office Santa Fe

Lease No. 078464

Unit

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL		SUBSEQUENT REPORT OF WATER SHUT-OFF	
NOTICE OF INTENTION TO CHANGE PLANS		SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF		SUBSEQUENT REPORT OF ALTERING CASING	
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL		SUBSEQUENT REPORT OF REDRILLING OR REPAIR	X
NOTICE OF INTENTION TO SHOOT OR ACIDIZE		SUBSEQUENT REPORT OF ABANDONMENT	
NOTICE OF INTENTION TO PULL OR ALTER CASING		SUPPLEMENTARY WELL HISTORY	
NOTICE OF INTENTION TO ABANDON WELL			

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

July 26, 1961

Well No. Govt. Cain 1-25 is located 1095 ft. from {N/S} line and 1075 ft. from {E/W} line of sec. 25

NE 25 (¼ Sec. and Sec. No.) 31N (Twp.) 13W (Range) NMPM (Meridian)

Basin Dakota (Field) San Juan (County or Subdivision) New Mexico (State or Territory)

The elevation of the derrick floor above sea level is 5929 ft K.B.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

See attached diagram dated 1-9-59. This shows condition of well prior to redrill. Production from Dakota dropped to 60 MCF/D because of plugging by undetermined cause, probably caused by the conglomeration of junk in the hole. Mesaverde production decreased to zero, probably because of reservoir conditions. Therefore, it was necessary to permanently abandon the Mesaverde producing zone and plug back and redrill to the Dakota zone. The history of this operation is attached.

RECEIVED
JUL 28 1961
OIL CON. COM.
DIST. 3

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Consolidated Oil & Gas, Inc.

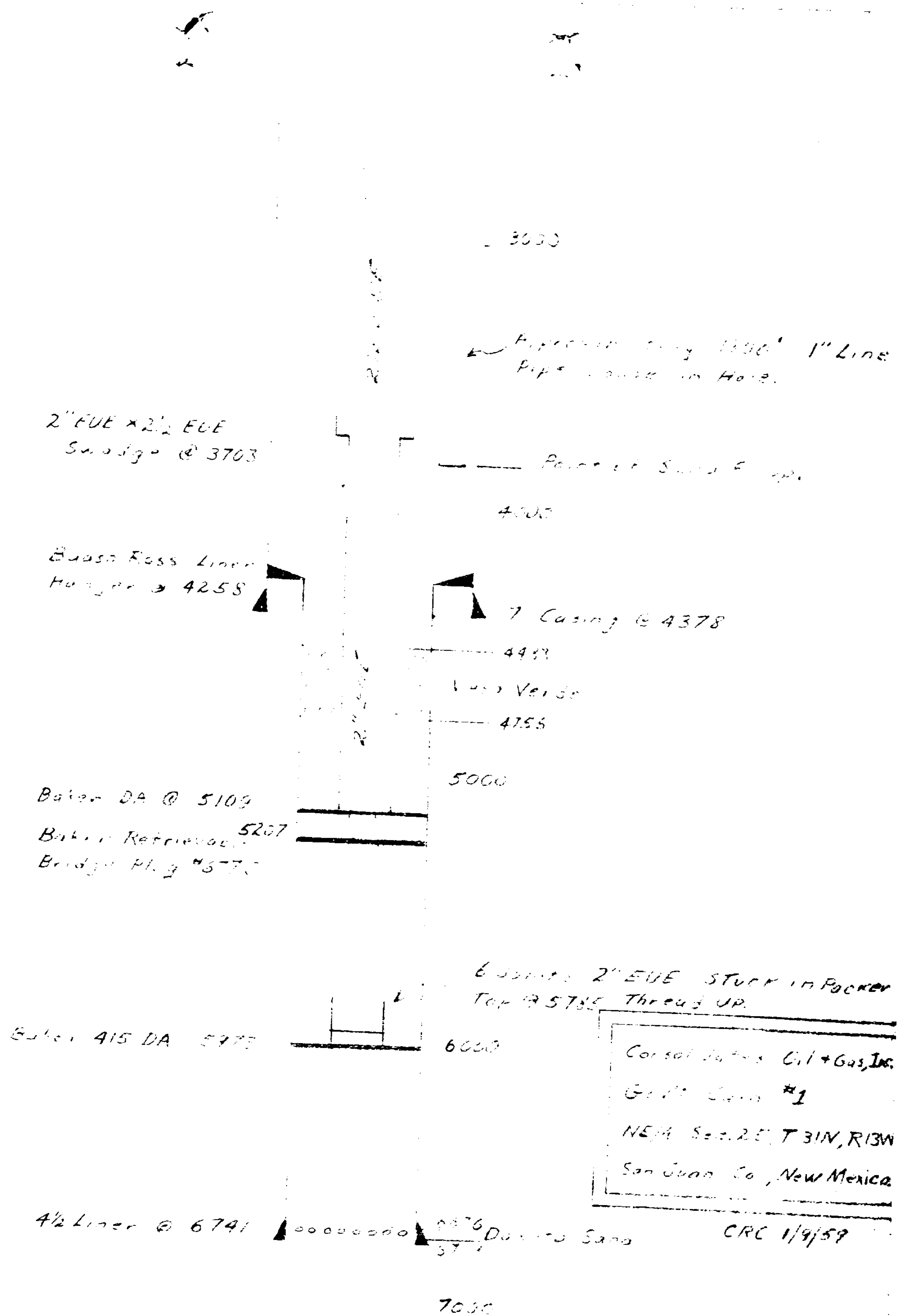
Address 2112 Tower Bldg., 1700 Broadway

Denver 2, Colorado

By

Title Chief Engineer

U. S. GOVERNMENT PRINTING OFFICE 16-8437-8



Consolidated Oil + Gas, Inc.
#1
NE/4 Sec. 25 T 31N, R13W
San Juan Co, New Mexico

CRC 1/9/59

REDRILLING AND RECOMPLETION HISTORY

CONSOLIDATED OIL & GAS, INC.

GOVT.-CAIN NO. 1-25

San Juan County, New Mexico
July 26, 1961

Location:	1095' FNL & 1075' FEL, Section 25 T31N-R13W, N.M.P.M.
Elevation:	5817' Ground 5829' K.B. - all measurements from K.B.
Re-spud:	June 2, 1961
Redrilling Completed:	June 21, 1961
Well Recompleted:	July 1, 1961
Total Depth:	6750' Drilled - OTD P.B. to 4221' 6818' Redrilled 6805' Plug Back (new)
Casing:	
Surface:	10 3/4" 32.75# H-40 cemented at 152' w/70 sx 2% $CaCl_2$ cement.
Production:	7", 20# J-55 cemented at 4378' w/150 sx 4 1/2" 11.0# J-55 originally run from 4258'-6472'. Sqz pkr set at 4221' and sqzd w/75 sx. Window cut 4173'-4185' in 7". 4 1/2" 9.5# J-55 run 4102'-6812' cemented w/400 sx 50/50 Pozmix.
Tubing:	1 1/2" IJ J-55 hung at 6612'
Logs:	B-J Simultaneous Nuclear
Cores and Drillstem Tests:	None

Formation Tops: (log)

Pictured Cliffs	2124'	(+3705)
Pt. Lookout	4457'	(+1372)
Mancos	4801'	(+1028)
Greenhorn	6520'	(- 686)
Dakota	6665'	(- 831)

Producing Perforations:

6669' - 6679'
6684' - 6698'
6722' - 6728'
6736' - 6753'

Treatment: 75,000# (40-60 and 20-40 mesh) sand, 113,000 gal. water, 750 gal. acid, 10 balls in two stages.

Initial Potential: Initial flow volume into line 450 MCFD

RECOMPLETION

WELL: GOV'T CAIN NO. 1-25

(1095' F/NL & 1075' F/EL of Sec. 25-31N-13W)

FIELD: Basin-Dakota

COUNTY: San Juan STATE: New Mexico

ELEVATIONS: 5817' GD

5829' KB

6/2/61

Moving on completion rig.

6/3/61

Pulling 1" Mesaverde annulus tubing string.

Tied on to Dakota tubing string yesterday and raised a few inches merely to determine that the wellhead could be properly removed and a strain taken on the tubing, if necessary - this was successful. Attempted to pump down Dakota tubing for abandonment of Dakota in this well but unable to pump away at 5000 PSIG - obtained only a slight bleed-off.

6/4/61

Fishing with wire line for the some 1800' of 1" tubing left in the hole two years ago.

Completed pulling 1" Mesaverde annular tubing string. Set cast iron permanent tubing plug in 2" Dakota tubing at 5095' KB. Dropped 8' of cement on top of tubing plug. Ran McCullough magnetector and found Dakota tubing string free at 4280'. (Note that the liner top is at 4258'.) Cut tubing with McCullough jet cutter at 4280' and retrieved same.

6/5/61

Going in hole with Howco DC Retainer to set in 7" casing in preparation for squeezing and abandoning the Mesaverde and all downhole sections.

WELL: GOV'T CAIN NO. 1-25

6/5/61 (Cont'd)

Retrieved approximately 1600' of 1" tubing fish. This was pulled out of the hole in varying lengths - from 50' to 350' by using wire line fishing tools. Condition of all fish is considered junk. This leaves approximately 200' of 1" tubing fish which will be forever abandoned beneath the 7" retainer. After cementing Mesaverde, will move off small rig and move on large rotary drilling rig for sidetracing operation.

6/6/61

WOC and big rotary rig. Set Howco DC retainer in 7" casing at 4221'. Loaded hole with water through tubing and beneath retainer and pumped in 75 sx regular cement with 1# HAL additive No. 9 per 100# cement. Fluid went on vacuum until cement contacted perforations, at which time pressure went to 350 PSIG. Inserted dart which converts retainer to bridge plug. Pressure went to 1000 PSIG immediately when dart seated in retainer. Pulled tubing out of retainer - pulled tubing and landed down. Released small rig.

6/7/61

Rigging up rotary tools.

6/8/61

Preparing to pick up drill pipe and proceed with clearing casing to bottom and set whipstock for sidetracking operations.

6/9/61

Pulling drill pipe after unsuccessful attempt to set permanent type whipstock.

6/10/61

Going in the hole with Kinzbach Type No. 155 mill. Set permanent Kinzbach 2.3° whipstock with top at 4173'. Bottom of curved portion at 4185' with slips between 4185' and 4191'. Cut initial window with Kinzbach opening mill Type No. 154 from 4173' to 4175 1/2'. Pulled out of hole to pick up Kinzbach mill Type No. 155.

WELL: GOV'T CAIN NO. 1-25

6/11/61

Cleaning up window with Kinzbach mill No. 159 from 4173' to 4185'. Drilled with Kinzbach mill Type 155 to cut window from 4175' to 4185'. Pulled out of hole. Picked up Bit No. 1 (CP-EH3). Went in hole but hooked top of whipstock, damaged bit, and pulled out. Went in hole with Kinzbach Type 159 to dress up window and top of whipstock.

6/12/61

Drilled at 4312' with gas. Dusting O.K. Pulled out Kinzbach Type 159. Dressed Kinzbach Type 154 to overgauge of 1/4 inch but it would not go in the hole past 150' from surface. Pulled out and went in with second Kinzbach No. 155. Dressed out top of whipstock and reamed to total depth at 4189'. Pulled out of hole, put on Bit No. 2 (CP-EH3), one knuckle joint and one reamer but no drill collars and went in hole and drilled to 4220' using water as circulating medium. Pulled out of hole, picked up Bit No. 3 (CP-EH3) 6 drill collars with full gauge reamer above bit. Went in the hole blowing out water with gas as circulating medium to total depth of 4220'. Drilled ahead from 4220' to 4312' using gas as circulating medium. Dusting properly with no apparent fluid problems. Ran Totco deviation measurements at the following depths:

4190'	-	1/2°
4215'	-	1-1/2°
4250'	-	2-1/2°
4280'	-	2-1/4°
4305'	-	3°

Will take Totco each 100 feet for the balance of the well.

6/13/61

Drilling at 4530' with Bit No. 4. Dusting good. Bit No. 3 made 256' in 19 hours. Totco deviation 3° at 4410'; 3 3/4° at 4510'.

WELL: GOV'T CAIN NO. 1-25

6/14/61

Fishing for drill collars and drill pipe. Drilled from 4530' to 4761'. Pipe torqued up and twisted off. Left 160' of 4 3/4" drill collars and 360' of 2 7/8" drill pipe in hole. Recovered 240' of 4 3/4" drill collars and drill pipe with overshot. Went in with overshot to fish top of drill collars and drill pipe.

6/15/61

Fishing for bit cones. Recovered remaining drill pipe and drill collars with overshot. Left three bit cones in hole. Total depth 4761'. Made reversing trip with Globe basket; recovered no cones. Another trip recovered no cones. Ran bit and stirred up cones. Went in with Globe basket, drilled 6" conventional and 6" reversing and picked up junk basket. Preparing to pull Globe basket.

6/16/61

Going in hole with bit # 4 to drill ahead. Recovered two cones with Globe basket. Made another trip with Globe basket and recovered other cone. Laid down 2 7/8" drill pipe and picked up 3 1/2" drill pipe to drill ahead.

6/17/61

Depth 4796'. Drilled 56'. Going in with Bit No. 4. Lost cone - fished cone. Retrieved between bit cones a short piece of 1" MV tubing fish from prior hole.

6/18/61

Depth 5081'. Drilled 285'. Bit No. 5. Dev. 2 1/4° at 5060'.

6/19/61

Depth 5545'. Drilled 464'. Bit No. 6. Dev. 2° at 5530'.

6/20/61

Depth 6261'. Drilled 726'. Sand and shale. Drilling with Bit No. 6. Dev. 3 1/4° at 5930'. Had 21 1/4 hours drilling - 2 3/4 hours other.

6/21/61

Depth 6691'. Drilled 450'. Sand and shale. Drilling with Bit 7 (Tungsten carbide type). Dev. 11° at 6603', 10° at 6450', 10 1/2° at 6550'. Bit No. 6, VH-1, made 1145', ran for 32 1/2 hours. Dakota top at about 6660'.

WELL: GOV'T CAIN NO. 1-25

6/22/61

TD 6818' (BJ log measurement). WOC. Laying down drillpipe.

Drilled to total depth with Bit No. 7. Pulled drillstem and ran preliminary Gamma-Ray Correlation Log. Finding Dakota top at 6659'. Ran 88 joints 4 1/2" 9.5# J-55 liner with float collar, float shoe one joint from bottom and Burns 7" x 4 1/2" liner hanger. Centralizers at 6675' and 6730'. Total of 2710 set at 4102' KB with shoe at 6812'.

Cemented with 400 sx 50/50 Pozmix with 4% gel. Displaced cement in dry gas filled hole without filling backside with water. Bumped plugs at 2000 PSIG - checked floats - OK.

Removed drillstem from liner and started out of hole laying down drillpipe after pulling 30 stands to clear drillpipe of excess cement left in 7" casing.

6/23/61

Waiting on completion rig.

6/26/61

Moving on completion rig.

6/27/61

Going in hole with bit to drill out cement and test liner.

Completed rigging up completion rig and started picking up workover tubing.

6/28/61

Drilling cement at 2434'. Found top of cement at 2069' KB. All cement has been fairly hard to this time. Will clean out to top of liner and test cement job.

WELL: GOV'T CAIN NO. 1-25

6/29/61

Going in hole with 3 3/4" bit to clean out cement inside of liner. Continuing to drill hard cement yesterday to 2900'. Had cement stringers from there to about 3700'. Hole was then clear of cement to top of liner. Closed rams and tested everything to 1500 PSIG - OK.

6/30/61

Preparing to go in hole and clean out frac sand and drill bridge plug and clean out to bottom after two stage Dakota frac.

Cleaned out to new PBTD of 6805'. Had only spotty cement at top of liner and hard cement below float collar. Tested complete casing and liner string to 2900 PSIG - held OK for 30 minutes. Spotted 750 gallons 15% mud acid on bottom and pulled tubing string. Perforated with 4 jets per foot at 6722' to 6728' and 6736' to 6753'. Broke down with acid and staged away slowly from beginning pressure of 1000 PSIG to final pressure of 800 PSIG. Performed lower stage frac as follows: Started injecting at 34 BPM at 2250 PSIG with 1/2# sand per gallon. Gradually increased to 3/4# sand per gallon and then to 1# sand per gallon by the time 20,000# sand injected. Dropped 10 balls with pressure increase to 2450 PSIG after 30,000# sand had been injected under above conditions. Pressure then increased slowly to 2800 PSIG until started flushing after 55,000# sand injected. Flushed at about 27 BPM. Standing pressure was 1100 PSIG in 15 minutes - bleeding off very slowly from this level.

Stage summary:

55,000# sand (20-40 mesh - 30,000# and 40-60 mesh - 25,000#)
750 gallons 15% mud acid
88,000 gals. water (treated with Dowell J-101)
10 balls
30 BPM
2550 to 2800 PSIG.

Lubricated in bridge plug on wire line and set at 6718'. Perforated with 4 jets per foot - 6669' to 6679' and 6684' to 6698'. After placing upper perfs first, noted immediate communication with lower zone, believed to be via vertical fractures.

WELL: GOV'T CAIN NO. 1-25

6/30/61 (Cont'd)

Performed upper stage Dakota frac as follows: Began injecting at 3000 PSIG - decreasing to 2750 PSIG when sand started. Increased sand concentration slowly from 1/2 to 1 pound per gallon with gradual pressure build up to 3100 PSIG at 25 BPM throughout the first 20,000# sand in formation. At this point a sand out occurred rapidly.

Stage summary:

20,000# sand (20-40 mesh)
25,000 gal. water (treated with Dowell J-101)
25 BPM
3000 PSIG.

This now provides us with 75,000# of sand injected through total perforations of 47'. In addition, New Drilling Company originally injected 25,000# sand in the immediate vicinity of this redrilled hole.

7/1/61

Laying down 2 1/2" tubing. Went in hole with tubing and bit, cleaned out approximately 1,000' of frac sand and drilled out bridge plug - see 6/30/61 report.

7/2/71

Blowing well with supply gas attempting to instigate natural Dakota flow - now have 1 1/2" completion tubing setting approximately at the liner top while blowing.

7/3/61

Shut in to allow pressure build up in order to instigate natural flow.

Continued to blow with supply gas at various points from liner top to bottom but apparently did not unload sufficient frac water because the well is still very loggy. Now have 625 PSIG casing pressure and 60 PSIG tubing pressure.

Landed completion tubing as follows: 1 1/2" integral joint - 209 joints plus 13' of subs (1 1/2" reg.) on top - total of 6601' landed at 6612' KB. 4/64" jet collars at 4216, 4722 and 5415' KB. Released rig at midnight.

WELL: GOV'T CAIN NO. 1-25

7/5/61

Moving on swab unit this morning. To this time the well has not built up sufficient tubing pressure to kick off by itself. This is not unusual in view of completion method.

7/6/61

Preparing to swab in Dakota. Did not progress yesterday because of rig repairs.

7/7/61

Blowing Dakota for initial clean up. Swabbed approximately 16 hours steadily - swabbed about 7 bbls. water per hour - fluid level fairly constant at 2200' - swabbed from 4500'. Well came in about 2 a.m.

7/10/61

Blowing Dakota for continued initial clean up. Have continued to blow 8 to 12 hours daily. The pressure builds up to about 1200 PSIG at the surface over night and unloads heavy frac water heads and considerable condensate when blowing to the atmosphere. Initial gauges indicate about 750 MCFD.

The necessary changes in the surface equipment should be completed by Southern Union this week so that we can begin selling gas again within the next few days.

7/12/61

After 48 hours shut in, the tubing pressure is 1680 PSIG and casing pressure 1530 PSIG. Anticipate completion of hook up today with first sales tomorrow.

7/14/61

Well has been producing into the sales line since yesterday a.m. Made 450 MCF, 10 barrels oil and 20 barrels frac water during last 18 hours. Prior to turn on the surface pressure was 1680 PSIG tubing and 1690 PSIG casing. The casing pressure this morning remains at 800 PSIG.