### Form 5500-SF

Department of the Treasury Internal Revenue Service

Department of Labor Employee Benefits Security Administration

Employee Benefits Security Administration

Pension Benefit Guaranty Corporation

## Short Form Annual Return/Report of Small Employee Benefit Plan

This form is required to be filed under sections 104 and 4065 of the Employee Retirement Income Security Act of 1974 (ERISA), and sections 6057(b) and 6058(a) of the Internal Revenue Code (the Code).

▶ Complete all entries in accordance with the instructions to the Form 5500-SF.

OMB Nos. 1210-0110 1210-0089

2018

This Form is Open to Public Inspection

Parti	Annual Repor	t identification information								
For calend	lar plan year 2018 or	fiscal plan year beginning 01/01/	2018	and ending 12	/31/2018					
A This re	turn/report is for:	X a single-employer plan		lan (not multiemployer) (F	_					
D. Till	,	a one-participant plan	a foreign plan							
B This return/report is the first return/report the final return/report										
		an amended return/report	a short plan year retur	n/report (less than 12 mo	nths)					
C Check	box if filing under:	Form 5558	automatic extension DFVC program							
	<u> </u>	special extension (enter desc	1 /							
Part II	Basic Plan Int	ormation—enter all requested in	formation							
1a Name ARROW OII	of plan L & CHEMICAL SOLU		Three-diginal plan number (PN) ▶							
					1c Effective of	date of plan 01/01/2018				
		oyer, if for a single-employer plan)	2.5.		<b>2b</b> Employer	Identification Number				
		om, apt., suite no. and street, or P.0 ce, country, and ZIP or foreign pos		ructions)	(EIN)	46-2574611				
ARROW OIL	L & CHEMICAL SOLU	JTIONS, LLC		ŕ		telephone number 01-826-2740				
					2d Business	code (see instructions)				
1855 CRANI JACKSON, I	E RIDGE DR. STE D MS 39216					325900				
•										
3a Plan a	administrator's name a	and address X Same as Plan Spo	nsor.		<b>3b</b> Administra	ator's EIN				
				_	3c Administra	ator's telephone number				
					JC Administra	itor's telephone number				
		ne plan sponsor or the plan name honsor's name, EIN, the plan name			<b>4b</b> EIN					
•	sor's name				4d PN					
C Plan N	Name									
<b>5a</b> Total	number of participant	s at the beginning of the plan year.			5a	2				
<b>b</b> Total	number of participant	s at the end of the plan year			5b	2				
		account balances as of the end of		-	5c					
<b>d(1)</b> Tot	tal number of active p	articipants at the beginning of the p	lan year		5d(1)	2				
		articipants at the end of the plan ye		_	5d(2)	2				
		o terminated employment during th			5e	0				
Caution: A	A penalty for the late	or incomplete filing of this retur	n/report will be assessed	unless reasonable cau	se is establish	ed.				
SB or Sche		other penalties set forth in the instru and signed by an enrolled actuary, aplete.								
SIGN Filed with authorized/valid electronic signature. 09/26/2019 THOMAS S. JORDAN										
HERE	Signature of plan	administrator	Date	Enter name of individu	al signing as pla	an administrator				
SIGN HERE	Filed with authorize	d/valid electronic signature.	09/26/2019	THOMAS S. JORDAN	N					
HERE	Signature of empl	oyer/plan sponsor	Date	Enter name of individu	al signing as en	nployer or plan sponsor				

Form 5500-SF (2018) Page **2** 

	Were all of the plan's assets during the plan year invested in eligib Are you claiming a waiver of the annual examination and report of under 29 CFR 2520.104-46? (See instructions on waiver eligibility	an indeper and condit	ndent qualified public a	account	ant (IC	PA)			Yes No
	If you answered "No" to either line 6a or line 6b, the plan cann If the plan is a defined benefit plan, is it covered under the PBGC ir If "Yes" is checked, enter the My PAA confirmation number from the	nsurance p	orogram (see ERISA se	ection 4	021)?		Yes X		ot determined instructions.)
Pa	rt III   Financial Information		T						
_7	Plan Assets and Liabilities		(a) Beginning (	of Year			(b) E	nd of Yea	ar
<u>a</u>	Total plan assets	7a		0				240	0629
<u>b</u>	Total plan liabilities	7b		0					0
С	Net plan assets (subtract line 7b from line 7a)	7c		0				240	0629
8	Income, Expenses, and Transfers for this Plan Year		(a) Amoun	ıt			(	b) Total	
а	Contributions received or receivable from: (1) Employers	8a(1)	26	64830					
	(2) Participants	8a(2)		0					
	(3) Others (including rollovers)	8a(3)		0					
b	Other income (loss)	8b	-2	24201					
С	Total income (add lines 8a(1), 8a(2), 8a(3), and 8b)	8c						240	0629
d	Benefits paid (including direct rollovers and insurance premiums to provide benefits)	8d		0					
e	Certain deemed and/or corrective distributions (see instructions) $\dots$	8e		0					
f	Administrative service providers (salaries, fees, commissions)	8f		0					
g	Other expenses	8g		0					
h	Total expenses (add lines 8d, 8e, 8f, and 8g)	8h			0			0	
<u>i</u>	Net income (loss) (subtract line 8h from line 8c)	8i						240	0629
j	Transfers to (from) the plan (see instructions)	8j		0					
Pai	rt IV Plan Characteristics								
9a	If the plan provides pension benefits, enter the applicable pension 1A 3D	feature co	odes from the List of Pla	an Cha	racteri	stic Co	des in the	instruction	S:
b	If the plan provides welfare benefits, enter the applicable welfare for	eature cod	les from the List of Plan	n Chara	acteris	tic Coc	les in the i	nstructions	:
Par	t V Compliance Questions						ı		
10	During the plan year:				Yes	No		Amour	nt
а	Was there a failure to transmit to the plan any participant contribu described in 29 CFR 2510.3-102? (See instructions and DOL's V Program)	oluntary F	iduciary Correction	10a		X			
b	Were there any nonexempt transactions with any party-in-interest reported on line 10a.)			10b		X			
С	Was the plan covered by a fidelity bond?	10c		X					
d	d Did the plan have a loss, whether or not reimbursed by the plan's fidelity bond, that was caused by fraud or dishonesty?								
е	Were any fees or commissions paid to any brokers, agents, or oth carrier, insurance service, or other organization that provides som the plan? (See instructions.)	ne or all of	the benefits under	10e		X			
f	Has the plan failed to provide any benefit when due under the pla	n?		10f		X			
g	Did the plan have any participant loans? (If "Yes," enter amount a	s of year-	end.)	10g		X			
h	If this is an individual account plan, was there a blackout period? 2520.101-3.)	•		10h					
i	If 10h was answered "Yes," check the box if you either provided the exceptions to providing the notice applied under 29 CFR 2520.10	•		10i					

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Part	VI Pension Funding Compliance								
11	11 Is this a defined benefit plan subject to minimum funding requirements? (If "Yes," see instructions and complete Schedule SB (Form 5500) and line 11a below)								
11a	Enter the unpaid minimum required contributions for all years from Schedule SB (Form 5500) line 40	11a			0				
12	Is this a defined contribution plan subject to the minimum funding requirements of section 412 of the Code or section ERISA?			Ye	s X No				
	(If "Yes," complete line 12a or lines 12b, 12c, 12d, and 12e below, as applicable.)								
а	If a waiver of the minimum funding standard for a prior year is being amortized in this plan year, see instructions, and granting the waiver			of the letter r _ Year	uling				
lf y	you completed line 12a, complete lines 3, 9, and 10 of Schedule MB (Form 5500), and skip to line 13.								
b	Enter the minimum required contribution for this plan year	12b							
С	Enter the amount contributed by the employer to the plan for this plan year	12c							
d	Subtract the amount in line 12c from the amount in line 12b. Enter the result (enter a minus sign to the left of a negative amount)	12d							
е	Will the minimum funding amount reported on line 12d be met by the funding deadline?		Yes	No	N/A				
Part '	VII Plan Terminations and Transfers of Assets								
13a	Has a resolution to terminate the plan been adopted in any plan year?		Yes	X No					
	If "Yes," enter the amount of any plan assets that reverted to the employer this year	13a							
b	Were all the plan assets distributed to participants or beneficiaries, transferred to another plan, or brought under the control of the PBGC?			Yes X	No				
С	If, during this plan year, any assets or liabilities were transferred from this plan to another plan(s), identify the plan(s) which assets or liabilities were transferred. (See instructions.)	to							
1	<b>3c(1)</b> Name of plan(s): 13c(2)	EIN(s)		<b>13c(3)</b> F	PN(s)				

## **SCHEDULE SB** (Form 5500)

Department of the Treasury Internal Revenue Service

Pension Benefit Guaranty Corporation

Department of Labor Employee Benefits Security Administration

## Single-Employer Defined Benefit Plan **Actuarial Information**

This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA) and section 6059 of the

Internal Revenue Code (the Code).

2018

OMB No. 1210-0110

This Form is Open to Public Inspection

	,	File as an at	tachment to Form 55	500 or 55	00-SF.			
For	calendar plan year 2018 or fiscal plan	n year beginning 01/01/2	018		and endin	g 12/3	1/2018	
	Round off amounts to nearest dolla Caution: A penalty of \$1,000 will be a		eport unless reasonat	ole cause	is established	d.		
	lame of plan ARROW OIL & CHEMICAL SOLUTIO	NS, LLC DEFINED BENEFIT I	PLAN	E	Three-dig	,	· •	002
	Plan sponsor's name as shown on line ARROW OIL & CHEMICAL SOLUTIO				<b>E</b> mployer	Identifica 46-257	ation Number (E '4611	EIN)
Ет	ype of plan: X Single Multiple-A	A Multiple-B	F Prior year plan	size: X	100 or fewer	101-	500 More th	an 500
Р	art I Basic Information							
1	Enter the valuation date:	Month Day3	31 Year <u>2018</u>	3				
2	Assets:							
	a Market value					2a		0
	<b>b</b> Actuarial value					2b		0
3	Funding target/participant count bre	akdown		. ,	mber of cipants	` '	sted Funding Farget	(3) Total Funding Target
	a For retired participants and benef	iciaries receiving payment			0		0	0
	<b>b</b> For terminated vested participants	s	<u> </u>		0		0	0
	<b>C</b> For active participants		·····		2		169902	176880
	<b>d</b> Total				2		169902	176880
4	If the plan is in at-risk status, check	the box and complete lines (a)	) and (b)					
	a Funding target disregarding preso	cribed at-risk assumptions				4a		
	<b>b</b> Funding target reflecting at-risk as at-risk status for fewer than five co					4b		
5	Effective interest rate					5		5.20 %
6	Target normal cost					6		66502
- 6	ement by Enrolled Actuary To the best of my knowledge, the information supple accordance with applicable law and regulations. In combination, offer my best estimate of anticipated	n my opinion, each other assumption is re						
ŀ	IERE						09/26/201	9
٨		gnature of actuary					Date 47.05006	-
A	LAN STONE	ar print name of actuary			-	Moot	17-05905 ecent enrollme	
н	Type O ERITAGE ADMINISTRATIVE SERVIO	or print name of actuary				WOST	631-659-15	
	ENTAGE ADMINISTRATIVE SERVICE	Firm name			Te	lenhone	number (includ	
S	00 CROSSWAYS PARK WEST UITE 413 OODBURY, NY 11797	, iiii nane				юртопо	Trainibor (morad	ing area eeae,
	A	Address of the firm						
	actuary has not fully reflected any requirements	gulation or ruling promulgated	under the statute in co	ompleting	this schedule	e, check	the box and see	e [

Schedule SB (Form 5500) 2018	Page <b>2 -</b> [

Pa	art II	Begin	ning of Year	Carryov	er and Prefunding B	alance	S						_
	•			-				(a) C	arryover balar	nce	(b) F	Prefundin	g balance
7 Balance at beginning of prior year after applicable adjustments (line 13 from prior year)										0			
8	Portion elected for use to offset prior year's funding requirement (line 35 from prior year)												
9	Amount r	emaining	g (line 7 minus line	8)						0			0
10	Interest of	on line 9 ເ	using prior year's	actual retur	rn of%					0			0
11	Prior yea	r's exces	s contributions to	be added t	to prefunding balance:								
	<b>a</b> Preser	nt value o	f excess contribut	ions (line 3	88a from prior year)								0
					over line 38b from prior ye interest rate of								0
				-	dule SB, using prior year's								0
	C Total a	vailable a	t beginning of curre	ent plan yea	er to add to prefunding baland	e							0
	<b>d</b> Portion	n of (c) to	be added to pref	unding bala	ance								0
12	Other red	ductions i	n balances due to	elections	or deemed elections					0			0
					line 10 + line 11d – line 12).					0			0
	art III		ding Percenta		,						· ·		
												14	0.00%
					·							15	97.35%
	Prior yea	r's fundin	g percentage for	purposes o	of determining whether carry	over/pre	fundin	g balance	es may be use			16	0.00%
17					less than 70 percent of the							17	%
	art IV		tributions an	•	_ •								
18					ar by employer(s) and empl		\ D .		424			\ A	
(N	(a) Date MM-DD-Y		<b>(b)</b> Amount p employer		(c) Amount paid by employees		<b>a)</b> Dat -DD-Y		(b) Amour emplo		(0	Amour <b>(:</b> emplo	t paid by yees
1	0/05/2018	}		75000	0								
0	3/18/2019	)		189830	0								
						Totals	<b>&gt;</b>	18(b)		2648	30 18(c)		0
19	Discount	ed emplo	yer contributions	– see instru	uctions for small plan with a	valuation	n date	after the	beginning of t	he year:			
	<b>a</b> Contril	outions a	llocated toward ur	npaid minim	num required contributions	from prio	r years	S		19a			0
	<b>b</b> Contributions made to avoid restrictions adjusted to valuation date												
	C Contributions allocated toward minimum required contribution for current year adjusted to valuation date												
20	Quarterly	contribu	tions and liquidity	shortfalls:									
	a Did the plan have a "funding shortfall" for the prior year?												
	<b>b</b> If line	20a is "Y	es," were required	l quarterly i	installments for the current	year mad	e in a	timely ma	anner?				Yes No
	C If line	20a is "Ye	es," see instructio	ns and com	nplete the following table as	applicab	le:						
					Liquidity shortfall as of en	d of quar	ter of t		· .				
		(1) 1st	t		(2) 2nd			(3)	3rd			(4) 4th	

	lort \/	Accumpti	one Heed t	o Dotormino	Cunding Toract	and Tare	ot Norm	al Coot		
	art V	-	ons Usea t	o Determine	Funding Target	and rarg	et Norma	ai Cost		
21	Discount		1et e	egment:	2nd segmer	nt-	31	d segment:		_
	<b>a</b> Segm	ent rates:	1313	3.92%	5.52		31	6.29 %		N/A, full yield curve used
	<b>b</b> Applic	able month (er	nter code)						21b	1
22	Weighte	d average retir	ement age						22	63
23	Mortality	table(s) (see	instructions)	Prior regulation	n: Prescri	bed - comb	ined	Prescribed	l - separat	te Substitute
				Current regular	tion: X Prescri	bed - comb	ined	Prescribed	l - separat	te Substitute
D:	art VI	Miscellane	ous Itams					1	<u>'</u>	Ц
				nrescribed actua	rial assumptions for th	e current ni	an vear? If	"Ves " see ii	netruction	e regarding required
		-					-			
25	Has a m	ethod change l	been made for	the current plan	year? If "Yes," see in	structions re	egarding red	uired attach	ment	Yes X No
26	Is the pla	an required to p	orovide a Sche	edule of Active Pa	articipants? If "Yes," s	ee instructio	ns regardin	g required a	ttachmen	tYes 🛛 No
27		•		ding rules, enter	applicable code and s	ee instruction	ons regardir	ıg	27	
P	art VII	Reconcili	ation of Un	paid Minimu	m Required Con	tribution	s For Pri	or Years		
28	Unpaid n	ninimum requii	red contribution	ns for all prior ye	ars				28	0
29					npaid minimum require		•	-	29	0
30	Remaini	ng amount of u	ınpaid minimur	m required contri	butions (line 28 minus	line 29)			30	0
Pa	art VIII	Minimum	Required (	Contribution	For Current Yea	r				
31	Target n	ormal cost and	d excess asset	s (see instruction	ns):					
_	<b>a</b> Target	normal cost (li	ne 6)						31a	66502
	<b>b</b> Excess	s assets, if app	olicable, but no	t greater than lin	e 31a				31b	0
32	Amortiza	tion installmen	nts:				Outst	anding Bala	nce	Installment
	a Net sh	ortfall amortiza	ation installmer	nt				1	76880	28876
	<b>b</b> Waive	r amortization	installment						0	0
33	If a waive (Month _				the date of the ruling) and the waived				33	
34	Total fun	ding requireme	ent before refle	ecting carryover/p	orefunding balances (li	nes 31a - 3	1b + 32a + 3	32b - 33)	34	95378
					Carryover bala	nce	Prefu	ınding balar	ice	Total balance
35		s elected for us		-						
36	Additiona	al cash require	ment (line 34 r	minus line 35)					36	95378
37				•	ribution for current yea	•		`	37	263723
38	Present	value of exces	s contributions	for current year	(see instructions)					
-	a Total (	excess, if any,	of line 37 over	line 36)	,				38a	168345
-	<b>b</b> Portion	n included in lir	ne 38a attributa	able to use of pre	efunding and funding s	tandard car	ryover balar	nces	38b	0
39	Unpaid n	ninimum requii	red contribution	n for current year	(excess, if any, of line	e 36 over lin	e 37)		39	0
40	Unpaid n	ninimum requii	red contribution	ns for all years					40	0
Pa	rt IX	Pension	Funding Re	elief Under P	ension Relief Ac	t of 2010	(See Ins	tructions	)	
41	If an elec	tion was made	to use PRA 2	010 funding relie	f for this plan:					
	<b>a</b> Sched	ule elected								2 plus 7 years 15 years
	<b>b</b> Eligible	e plan year(s) f	for which the e	lection in line 41	a was made				<u></u>	08

#### Form 5500-SF

Department of the Treasury Internal Revenue Service

Department of Labor se Benefits Security Administrati Pension Benefit Guaranty Corporation

## Short Form Annual Return/Report of Small Employee Benefit Plan

This form is required to be filed under sections 104 and 4065 of the Employee

2018

This Form is Open to Public Inspection

OMB Nos. 1210-0110

1210-0089

Retirement Income Security Act of 1974 (ERISA), and section 6057(b) and 6058(a) of the Internal Revenue Code (the Code).

Complete all entries in accordance with the instructions to the Form 5500-SF Part 1 Annual Report Identification Information For calendar plan year 2018 or fiscal plan year beginning 01/01/2018 and ending 12/31/2018 a multiple-employer plan (not multiemployer) (Filers checking this box must attach a single-employer plan A This return/report is for a list of participating employer information in accordance with the form instructions.) a one-participant plan a foreign plan B This return/report is: the first return/report the final return/report an amended return/report a short plan year return/report (less than 12 months) C Check box if filing under: Form 5558 automatic extension DFVC program special extension (enter description) Basic Plan Information — enter all requested information 1a Name of plan 1b Three-digit Arrow Oil & Chemical Solutions, LLC Defined Benefit Plan olan number (PN) > 1c Effective date of plan 01/01/2018 Plan sponsor's name (employer, if for a single-employer plan)
Mailing Address (include room, apt., suite no. and street, or P.O. Box) 2b Employer Identification Number City or town, state or province, country, and ZIP or foreign postal code (if foreign, see instructions) (EIN) 46-2574611 Arrow Oil & Chemical Solutions, LLC 2c Sponsor's telephone number (601) 826-2740 2d Business code (see instructions) 1855 Crane Ridge Dr. STE D 325900 US Jackson MS 39216 Plan administrator's name and address X Same as Plan Sponsor 3b Administrator's EIN 3c Administrator's telephone number If the name and/or EIN of the plan sponsor or the plan name has changed since the last return/report filed for 4b EIN this plan, enter the plan sponsor's name. EIN, the plan name and the plan number from the last return/report. Sponsor's name 4d PN Plan Name 5a Total number of participants at the beginning of the plan year ... 5a 2 b Total number of participants at the end of the plan year . 5b 2 Number of participants with account balances as of the end of the plan year (only defined contribution plans complete this item) ... 5c d(1) Total number of active participants at the beginning of the plan year 5d(1) 2 d(2) Total number of active participants at the end of the plan year 5d(2) 2 Number of participants who terminated employment during the plan year with accrued benefits that were less than 100% vested 0 Caution: A penalty for the late or incomplete filing of this return/report will be assessed unless reasonable cause is established Under penalties of perjury and other penalties set forth in the instructions, I declare that I have examined this return/report, including, if applicable, a Schedule SB or Schedule MB completed and signed by an enrolled actuary, as well as the electronic version of this return/report, and to the best of my knowledge and belief, it is true, sprrect, and comp Momac SIGN Thomas S. Jordan HERE Signature of plan adm Enter name of individual signing as plan administrator SIGN Thomas S. Jordan HERE Signature of employer/plan s Enter name of individual signing as employer or plan sponsor

For Paperwork Reduction Act Notice, see the instructions for Form 5500-SF.

Form 5500-SF (2018) v 171027

## Schedule SB, Part V Summary of Plan Provisions

### Arrow Oil & Chemical Solutions, LLC Defined Benefit Plan 46-2574611 / 002

For the plan year 01/01/2018 through 12/31/2018

Employer: Arrow Oil & Chemical Solutions, LLC

Type of Entity - Limited Liability Company (LLC) taxed as C Corp

EIN: 46-2574611 TIN: 83-1498233 Plan #: 002 Plan Type: Defined Benefit

**Dates:** Effective - 01/01/2018 Year end - 12/31/2018 Valuation - 12/31/2018

Eligibility: All employees excluding non-resident aliens and union

Minimum age - 21 Months of service - N/A

Hours Required for - Eligibility - 1000 Benefit accrual - 1000 Vesting - 1000

Plan Entry - First day of 1st or 7th month of plan year on or next following eligibility satisfaction

Retirement: Normal - First of month coincident with or next following attainment of age 62 and completion of 5 years of participation

Early - Not provided

Average Compensation: Highest 3 consecutive years of service

Top Heavy Minimum Benefit - Highest 5 consecutive top heavy years of participation

Plan Benefits: Retirement - Derived from the fixed benefit formula below rounded to the nearest dollar:

50% of average monthly compensation reduced by 1/25 for each year of service less than 25 years

Accrued Benefit - Pro-rata based on service with 99 maximum accrual years. Service prior to 01/01/2015 is excluded

Minimum Benefit - None Maximum Benefit - None

Maximum allowable distribution is lump sum equivalent of normal form not to exceed 415 maximum allowable distribution, which is the lesser amount computed using a) 5.5% interest and the Applicable Mortality Table or

b) the greater of plan actuarial equivalence interest and mortality or 417(e) Minimum

Early Retirement - None

Death Benefit - Greater of Face Amount or Present Value of Monthly Retirement Benefit plus Cash Value

Disability Benefit - None

Top Heavy Minimum: None

IRS Limitations: 415 Limits - Percent: 100 Dollar: \$220,000

Maximum 401(a)(17) compensation - \$275,000

Normal Form: Life Annuity

Optional Forms: Lump Sum

Life Annuity Guaranteed for 10 Years

Joint with 50%, 75% or 100% Survivor Benefit

Vesting Schedule: 100% vested in 3 years.

Service is calculated using all years of service

# Schedule SB, Part V Summary of Plan Provisions

## Arrow Oil & Chemical Solutions, LLC Defined Benefit Plan 46-2574611 / 002

For the plan year 01/01/2018 through 12/31/2018

<u>Present Value of Accrued Benefit:</u> Based on the greater of 417(e) or Actuarial Equivalence 417(e):

Interest Rates -

Segment #	Years	Rate %
Segment 1	0 - 5	2.33
Segment 2	6 - 20	3.55
Segment 3	> 20	4.11

Mortality Table - 18E - 2018 Applicable Mortality Table for 417(e) (unisex)

### **Actuarial Equivalence:**

Pre-Retirement - Interest - 5%

Mortality Table - None

Post-Retirement - Interest - 5%

Mortality Table - G94 - 1994 Group Annuity Reserving Proj 2002, Scale AA (unisex) blended 50.00% male

and 50.00% female rates

## Schedule SB, Part V **Statement of Actuarial Assumptions/Methods**

## Arrow Oil & Chemical Solutions, LLC Defined Benefit Plan 46-2574611 / 002

For the plan year 01/01/2018 through 12/31/2018

12/31/2018 Valuation Date:

As prescribed in IRC Section 430 **Funding Method:** 

Age - Eligibility age at last birthday and other ages at nearest birthday

Retrospective Compensation - Highest 3 consecutive years of service

Form of Payment - Assumed form of payment for funding is lump sum equivalent of normal form. Funding Target for lump sum is the greater of the present value of accrued benefit computed using funding segment rates and 417(e) Applicable Mortality Table or lump sum at the assumed retirement date of accrued benefit using plan actuarial equivalence discounted using appropriate segment rate. Lump sum on plan actuarial equivalence rates will not exceed 415 maximum allowable distribution, which is the lesser amount computed using a) 5.5% interest and the Applicable Mortality Table or b) the greater of plan actuarial equivalence interest and mortality or 417(e) Minimum

Interest Rates -

Segment rates for the First Month Prior to Val Date as permitted under IRC 430(h)(2)(C)

Segment #	Year	Rate %
Segment 1	0 - 5	2.43
Segment 2	6 - 20	3.89
Segment 3	> 20	4.49

Segment rates as of September 30, 2017 As permitted under IRC 430(h)(2)(C)(iv)(II) - HATFA						
Segment #	Year	Rate %				
Segment 1	0 - 5	3.92				
Segment 2	6 - 20	5.52				
Segment 3	> 20	6.29				

Pre-Retirement - Mortality Table -None

> Early Retirement Table - None Turnover Table -None Disability Table -None Salary Scale -None Expense Load -None Ancillary Ben Load -None

Post-Retirement - Mortality Table -18C - 2018 Combined

Cost of Living -

G94 - 1994 Group Annuity Reserving Proj 2002, Scale AA (unisex) blended 50.00% Lump Sum -

male and 50.00% female rates at 5%

18E - 2018 Applicable Mortality Table for 417(e) (unisex)

Fair market value of assets adjusted for contributions under IRC 430(g)(4) **Asset Valuation Method:** 

#### **Discrimination Test Assumptions:**

HCE Determination - Based on all employees

Otherwise Excludable - Otherwise Excludable HCEs are included with the Not Otherwise Excludable employees

## Schedule SB, Part V **Statement of Actuarial Assumptions/Methods**

## Arrow Oil & Chemical Solutions, LLC Defined Benefit Plan 46-2574611 / 002

For the plan year 01/01/2018 through 12/31/2018

### 410(b)/401(a)(4) Testing:

Pre-Retirement - Interest -8.5%

Post-Retirement - Interest -8.5%

> Mortality Table -183M - 1983 Individual Annuity (male)

Permissively Aggregated Plans - Not tested As Single Plan

Compensation - Use current compensation to calculate the benefit accrual rate (annual method)

Testing Age - Normal retirement age or attained age, if older

Testing Service - Separate benefiting service for DC and for DB for Accrued-to-Date Method

Normal Form for MVAR - Joint with 50% Survivor Benefits

### 401(a)(26) Testing:

Compensation - Use current compensation to calculate the benefit accrual rate for 401(a)(26)

Testing Age - Normal retirement age or attained age, if older

# Schedule SB, line 32 - Schedule of Amortization Bases

## Arrow Oil & Chemical Solutions, LLC Defined Benefit Plan 46-2574611 / 002

For the plan year 01/01/2018 through 12/31/2018

	Date Base Established	Original Base Amount	Type of Base	Present Value of Remaining Installments	Years Remaining Amortization Period	Amortization Installment
	12/31/2018	176,880	Shortfall	176,880	7	28,876
Totals:				\$176,880		\$28,876

#### **TJORDANDB**

September 26, 2019

## Schedule SB, line 22 - Description of Weighted Average Retirement Age

Arrow Oil & Chemical Solutions, LLC Defined Benefit Plan 46-2574611 / 002 For the plan year 01/01/2018 through 12/31/2018

The age reported is the weighted average of the assumed retirement ages for all active participants as of the valuation date based on their funding target or target normal cost should the funding target of the plan be zero rounded to the nearest whole age. For an active late retiree, the assumed retirement age may be later than the Plan's normal retirement age. Each participant's rate of retirement is assumed to be 100% of his/her assumed retirement age.

# Schedule SB, line 19 - Discounted Employer Contributions

## Arrow Oil & Chemical Solutions, LLC Defined Benefit Plan 46-2574611 / 002

For the plan year 01/01/2018 through 12/31/2018 Valuation Date: 12/31/2018

	Date	Amount	Adjusted Contribution	Adjusted Prior Year Contribution	Adjusted Quarterly	Effective Rate	Penalty Rate
Deposited Contribution	<b>10/05/2018</b> 12/31/2018	<b>\$75,000</b> 75.000	75.912	0	0	5.20	0.00
Applied to MRC  Deposited Contribution	03/18/2019	\$1 <b>89,830</b>	75,912	0	U	5.20	0.00
Applied to Additional Contribution	12/31/2018	170,155	168,345	0	0	5.20	0.00
Applied to MRC	12/31/2018	19,675	19,466	0	0	5.20	0.00
Totals for Deposited Contribution		\$264,830	\$263,723	\$0	\$0		

## SCHEDULE SB (Form 5500)

Department of the Treasury Internal Revenue Service

Department of Labor **Employee Benefits Security Administration** 

## Single-Employer Defined Benefit Plan **Actuarial Information**

This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA) and section 6059 of the Internal Revenue Code (the Code).

2018

This Form is Open to Public Inspection

OMB No. 1210-0110

Pension Benefit Guaranty Corporation File as an attachment to Form 5500 or 5500-SF. and ending 12/31/2018 01/01/2018 For calendar plan year 2018 or fiscal plan year beginning ▶ Round off amounts to nearest dollar. ▶ Caution: A penalty of \$1,000 will be assessed for late filing of this report unless reasonable cause is established Three-digit A Name of plan plan number (PN) 002 Arrow Oil & Chemical Solutions, LLC Defined Benefit Plan D Employer Identification Number (EIN) C Plan sponsor's name as shown on line 2a of Form 5500 or 5500-SF 46-2574611 Arrow Oil & Chemical Solutions, LLC F Prior year plan size: X 100 or fewer 101-500 More than 500 E Type of plan: X Single Multiple-A Multiple-B **Basic Information** Part I Year 2018 12 31 Day Enter the valuation date: Month 1 Assets: 0 2a a Market value ..... 0 **b** Actuarial value ..... (3) Total Funding (2) Vested Funding (1) Number of Funding target/participant count breakdown: Target Target participants 0 0 0 a For retired participants and beneficiaries receiving payment ..... 0 0 0 **b** For terminated vested participants ..... 176,880 2 169,902 C For active participants ..... 176,880 169,902 2 ....... If the plan is in at-risk status, check the box and complete lines (a) and (b) ...... a Funding target disregarding prescribed at-risk assumptions ..... 4a b Funding target reflecting at-risk assumptions, but disregarding transition rule for plans that have been in 4b at-risk status for fewer than five consecutive years and disregarding loading factor 5.20 % 5 Effective interest rate ..... 5 6 66,502 Target normal cost ..... To the best of my knowledge, the information supplied in this schedule and accompanying schedules, statements and attachments, if any, is complete and accurate. Each presribed assumption was applied in accordance with applicable law and regulations. In my opinion, each other assumption is reasonable (taking into account the experience of the plan and reasonable expectations) and such other assumptions, in Statement by Enrolled Actuary combination, offer my best estimate of anticipated experience under the plan. SIGN 09/26/2019 HERE Date Signature of actuary 17-05905 Alan Stone Most recent enrollment number Type or print name of actuary (631) 659-1517 Heritage Administrative Services Telephone number (including area code) Firm name 100 Crossways Park West Suite 413 NY 11797 US Woodbury Address of the firm

If the actuary has not fully reflected any regulation or ruling promulgated under the statute in completing this schedule, check the box and see

instructions

age 2	

Pari	-11	Rogin	nning of Year Ca	rryover	and Prefunding Balan	ces						
ran	211	Degli	illing of Teal Ca	Tyover	and i fording a disti		(a) Carryover balance			(b) Prefunding balance		
7	Balanc year) .	e at beg	inning of prior year aft	ter applica	ble adjustments (line 13 from	prior			0			0
8	Portion	elected	for use to offset prior	year's fun	ding requirement (line 35 from	1			0			0
									0			0
									0			0
					n of0.00%	•••••	======					
					o prefunding balance:							0
					38a from prior year)							
		Schedul	e SB, using prior year	's effective	over line 38b from prior year interest rate of0.00 %	8						0
	b(2)	Interest	on line 38b from prior	year Sche	dule SB, using prior year's ac	tual						0
						•••••			+			0
					year to add to prefunding bala							
					ance				0			0
12					or deemed elections				0			0
13	Balan	ce at be	ginning of current yea	r (line 9 +	line 10 + line 11d - line 12)							
Pa	rt III		inding Percentag								14	0.00 %
14	Fundi	ng targe	t attainment percenta	ge		•••••					15	97.35 %
15	Adjus	ted fund	ling target attainment	percentage	e	uor/profi	unding balan	ces may be used to	reduce		16	
16	Prior	year's fu nt vear's	inding percentage for funding requirement	purposes	of determining whether carryo	ver/pren						0.00 %
17	If the	current	value of the assets of	the plan is	less than 70 percent of the fu	unding ta	arget, enter s	uch percentage			17	<u>%</u>
	rt IV		ontributions and									
		030399000			ear by employer(s) and employer	yees:						
	(a) Da		(b) Amount pai employer(s)	d by	(c) Amount paid by employees	(a (MM-D	) Date D-YYYY)	(b) Amount pa employer(s	s)			unt paid by oyees
10	/05/2	018	7	5,000		03/18	3/2019	1	89,83	-		
							-					
										-		
-												
						Totalo	h (19/b)		64.00	18(c)	V	0
		- 1				Totals	30, 5			0 1.5(0)	1	
19	Disc	ounted e	employer contributions	s see ins	structions for small plan with a	valuatio	n date after	tne beginning of the	year:			
					nimum required contributions f			1977	19b			
					djusted to valuation date				19c			263,72
					equired contribution for currer	nt year a	ajusted to va	iluation date	190		2	200,72
20	) Qua	rterly co	ntributions and liquidi	ty shortfall	S:							Yes X No
	<b>a</b> D	id the pl	lan have a "funding sh	ortfall" for	the prior year?	•••••	 			•••••	Г	☐ Yes ☐ No
					ly installments for the current			y manner			- L	_ ,,,,
	C If	line 20a	a is "Yes," see instruct	tions and o	complete the following table as	applica	ble:	n vear				
	_	/4	) 1st		Liquidity shortfall as of end (2) 2nd	or quan	er or this pia (3)	3rd			(4)	lth
		(1	) 1st		(4)		1-1					

Pai	rt V Assumption	ons Used To Determine	Funding Target and Targe	t Normal Cost			
	Discount rate:						
	a Segment rates:	1st segment: 3.92 %	2nd segment: 5.52 %	3rd segment: 6.29 %		N/A, full yield curve to	used
	h Applicable month		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	21	b	1	
22				1 20			63
	Mortality table(s) (se		The second secon	bined Prescribed - s	,	Substitute	
	* ***	Current reg	ulation: X Prescribed - com	bined Prescribed - s	eparate	Substitute	
Par	t VI Miscellan	eous items		A LAMPA OF THE STATE OF THE STA		arding required	
24	Has a change been	made in the non-prescribed act	uarial assumptions for the current	plan year? If Yes, see Illsut	····	Yes	x No
	attachment		an year? If "Yes," see instructions	regarding required attachmen	it	Yes	X No
927	Has a method chan	ge been made for the current pi	Participants? If "Yes," see instructions	tions regarding required attac	hment .	Yes [	X No
26	Is the plan required	to provide a Schedule of Active	ter applicable code and see instruc	etions regarding 2			
21	attachment						
Pa	rt VII Reconcil	liation of Unpaid Minimu	ım Required Contributions	For Prior Years			
28	Unpaid minimum re	equired contributions for all prior	years	2	8		(
29	Discounted employ	er contributions allocated toward	d unpaid minimum required contrib	utions from prior years 2	9		5
30	(line 19a)	of unnaid minimum required co	ntributions (line 28 minus line 29)		0		Ĥ
		n Required Contribution					
31	S. C.	and excess assets (see instruc					
- 01					1a		66,50
	b Excess assets, if	applicable, but not greater than	line 31a	3	1b		
32	Amortization install	Iments:		Outstanding Balance		Installment	
				176,			28,87
					0		
33	If a waiver has bee	en approved for this plan year, e DayYear	nter the date of the ruling letter gra) and the waived amount.	nting the approval	33	_ 10=	
34	Total funding requir	rement before reflecting carryove	r/prefunding balances (lines 31a - 3	1b + 32a + 32b - 33)	34		95,37
-			Carryover balance	Prefunding Balance		Total balance	
35	Balances elected f	for use to offset funding					
36	Additional cash re	quirement (line 34 minus line 35	)	. ,	36		95,3
	Contributions alloc	37		263,7			
38	Present value of e	excess contributions for current y	year (see instructions)				
			*************		38a		168,3
		carryover serement	38b				
39		i line 37)	39				
4	0 Unpaid minimum	required contributions for all year	irs		40		
			Pension Relief Act of 201	0 (See Instructions)			
4	1 If an election was r	made to use PRA 2010 funding	relief for this plan:				
	a Schedule electe	ed					years
-	<b>b</b> Eligible plan ye	ar(s) for which the election in lin	e 41a was made		2008	20092010	2011