# **GW - 28**

# Monitor Well Abandonment



September 28, 2018

Ms. Catherine Goetz
New Mexico Office of the State Engineer
Water Rights District II
1900 West Second Street
Roswell, New Mexico 88201

RE: Work Plan for Abandonment of Former "Test" Wells: HollyFrontier Navajo Refining LLC – Artesia Refinery

Dear Ms. Goetz:

HollyFrontier Navajo Refining LLC (Navajo) is submitting this *Work Plan for Abandonment of Former "Test" Wells* (work plan) for the Artesia Refinery located in Artesia, New Mexico (**Figure 1**). This work plan has been prepared to propose the abandonment of sixteen (16) "test" wells located around the former evaporation ponds (EPs) approximately three miles east of the active refinery. These wells were installed between 1977 and 1982, but are not part of the current groundwater monitoring well network. The proposed scope of work for the abandonment of these wells is provided below.

#### Background

Soil and groundwater investigations have been conducted in and around the EPs since the late 1970's. Shallow groundwater "test" wells were installed surrounding the EPs between 1977 and 1982. Subsequent investigations were performed from the mid-1980's through 2013, which included installation of numerous additional monitoring wells within and surrounding the EPs. Semiannual groundwater monitoring of the EPs is conducted according to a *Facility-Wide Groundwater Monitoring Work Plan*, which is updated annually and submitted to the New Mexico Environment Department (NMED) Hazardous Waste Bureau and to the New Mexico Energy, Minerals Natural Resources Department Oil Conservation Division (OCD) for review and approval. As mentioned above, the "test" wells are not included in the current semiannual monitoring program.

During a routine site inspection, Navajo personnel observed the presence of metal and fiberglass vertical pipes at various locations surrounding the EPs (**Figure 2**). Further investigation confirmed that the locations of these pipes correspond to the locations of the "test" wells, which were previously believed to have been plugged and abandoned. Navajo personnel attempted to locate all of the "test" wells and gauged those that they were located. Several of the wells were dry and at least one had roots blocking the casing. Navajo plans to properly plug and abandon these wells because the wells are not suitable for groundwater monitoring as the condition of the wells screens is unknown and there is adequate monitoring coverage in the EP area,

#### **Proposed Well Abandonment Activities**

**Table 1** provides a listing of the point of diversion (POD) number assigned to the test wells, the well numbers, well construction information (where available from well logs or POD reports), and information obtained by Navajo personnel. As seen in **Figure 2** and **Table 1**, 10 of the 16 test wells were located in the field. Subsurface location methods, such as the use of a metal detector, magnetometer, or similar device, will be used to attempt to locate the other 6 wells.

"Test" well #16 is located in close proximity to existing pipelines. A historical figure of the "test" well locations shows well #13 to be near well #16; thus, well #13 is also within the area of existing pipelines. The reported location of well #11 on the New Mexico Office of the State Engineer (OSE) record was stated as "1600 feet from the east boundary of Section 12" while the reported location on the OSE record for well #12 is "1500 feet from the east boundary of Section 12". Downhole cameras will be deployed in well #16, and wells #11 and #13 if they can be located, to verify the presence of screened pipe and confirm that these are correctly identified as "test" wells rather than features associated with the pipelines. Because well #16, and potentially wells #11 and #13, are located within fifteen feet of existing pipelines, Navajo proposes to abandon each well (if located) by grouting in place without attempting to remove the casing.

**Attachment A** contains a copy of form WD-08 "Well Plugging Plan of Operations" required by the OSE for each of the 16 test wells proposed to be abandoned. These forms are being submitted to OSE prior to initiation of field activities and this work plan will be modified, if necessary, based on OSE comments. **Attachment B** contains a copy of the OSE well records that were located for the test wells.

The well casing (with the exception of "test" wells #11, #13, and #16) will be pulled from the ground at each location, if possible. If it is not possible to pull the well casing, the casing will be cut approximately 1-3 feet below the ground surface. New Mexico Administrative Code (NMAC) Section 19.27.4.30.C specifies that well plugging should be conducted by filling the constructed well from the bottom upwards using a neat cement slurry, bentonite based plugging material, or other sealing material approved by the state engineer. A tremie pipe will be inserted into the open boring immediately following removal of each casing, or into the casing if it will be left in place, to pump slurry into the well from the bottom up to the surface. The proposed slurry material for filling these wells will consist of approximately 5.2 gallons of water per 94-pound bag of Portland cement. Due to the remote locations of these wells, the cement slurry will be mixed on site, then pumped into the borehole (or remaining casing) using a tremie pipe to fill the well from the bottom upwards.

Following approval of the plugging plans, Navajo will schedule the field activities to occur so as to complete the work in a timely manner. The actual volume of material placed in each well will be documented and the abandonment procedures will be photographically documented. Following completion of the well abandonment activities, a summary letter will be prepared and submitted to OSE, along with the driller's completed plugging report for each well. A copy of the summary letter and documentation of the field activities completed within the scope of this work plan will be included in the subsequent *Annual Groundwater Monitoring Report*, which will be submitted to both the NMED and the OCD.

Ms. Catherine Goetz September 28, 2018 Page 3

If you have any questions or comments regarding this request, please feel free to contact me at 575-746-5487 or Robert Combs at 575-746-5382.

Sincerely,

Scott M. Denton

**Environmental Manager** 

HollyFrontier Navajo Refining LLC

#### Enclosures

c: Ms. Leona Tsinnajinnie, NMED HWB

Mr. Carl Chavez, OCD

#### **TABLE**

#### Table 1 - Former "Test Wells" Information HollyFrontier Navajo Refining LLC - Artesia, New Mexico

POD Number	Test Well	Diameter (in)	Screen Interval (ft)	TD from log	Installation Date	Lat Deg	Lat Min	Lat Sec	Long Deg	Long Min	Long Sec	Field verification comments
RA 06143 X2	#1	8	3 to 19	20	6/16/1977	32	51	23.5	-104	20	35.6	Broken at ground level, dry
RA 06143 X3	#2	-	-	-	-	32	51	22.3	-104	20	35.6	Found, DTW 9.05 ft
RA 06143	#3	8	3 to 19	23	6/17/1977	32	51	18.9	-104	20	16.2	Not found in field
RA 06143 X4	#4	-	-	-	-	32	51	19.9	-104	20	15.1	Not found in field
RA 06143 X5	#5	8	3 to 20	21	6/18/1977	32	51	33.8	-104	20	3.9	Found, DTW 11.3 ft, TD 11.6 ft
RA 06143 X6	#6	-	-	-	-	32	51	36.2	-104	20	0.8	Found, dry with weeds
RA 06143 X7	#7	8	3 to 21	22	6/20/1977	32	51	32.2	-104	19	39.8	Not found in field
RA 06143 X83	#8	-	-	-	-	32	51	30.5	-104	19	39.6	Not found in field, should be south of #7
RA 06143 X9	#9	8	3 to 20	21	6/21/1977	32	51	14.0	-104	19	54.8	Found, dry, 4.2 ft TD, 6 in instead of 8 in
RA 06143 X10	#10	-	-	-	-	32	51	22.9	-104	19	38.1	Found, dry
RA 06143 X11	#11	-	-	-	-	32	51	4.1	-104	22	32.8	Not found in field, reported 100 ft west of well #12
RA 06143 X12	#12	8	3 to 18	19	6/22/1977	32	51	13.9	-104	19	52.1	Found, 3 ft stickup, DTW 8.15 ft, TD 14.8 ft
RA 06143 X13	#13	8	3 to 20	21	6/23/1977	32	51	13.4	-104	20	5.4	Not found in field
RA 06143 X14	#14	-	-	-	-	32	51	23.2	-104	19	36.1	Found near #10 & #17, wasps; another #14 shown on Plate 2 near #13 & #16
RA 06775 E	#16	8.625	-	60	3/29/1981	32	51	13.7	-104	20	8.1	Found, 2 ft stickup, DTW 9.66 ft, TD 37.7 ft
RA 06776 E	#17	8.625	-	30	3/29/1981	32	51	21.6	-104	19	36.8	Found, threaded steel cap could not be opened

#### Definitions:

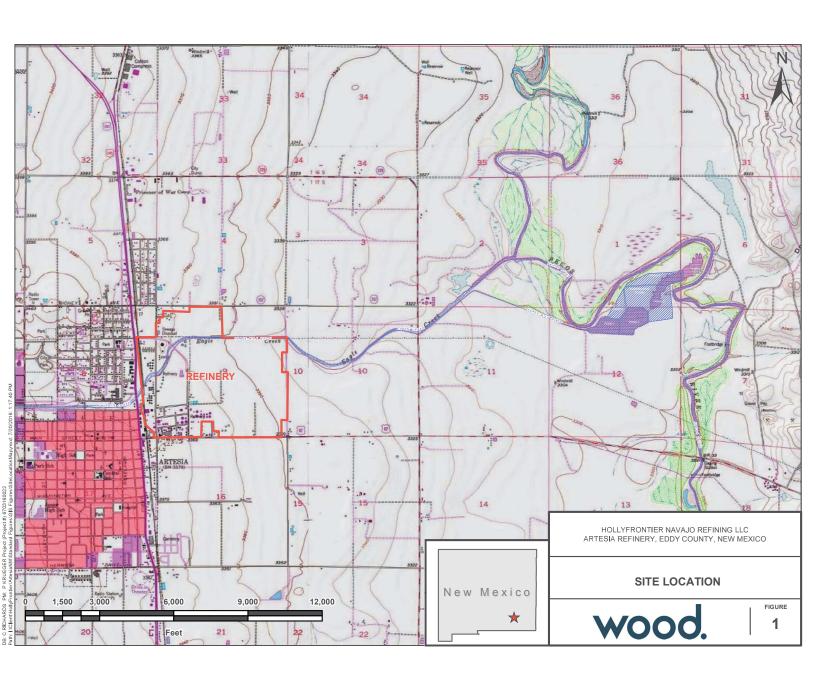
- = no historical information is available

Deg = degrees
DTW = depth to water
ft = feet
in = inches
Lat = Latitude

Long = Longitude
Min = Minutes
OSE = Office of the State Engineer

POD = point of diversion
Sec = Seconds
TD = total depth ("from log" means from OSE records, TD in comments column was measured)

#### **FIGURES**





## ATTACHMENT A WELL PLUGGING PLAN FORMS



## WELL PLUGGING PLAN OF OPERATIONS



NOTE: A Well Plugging Plan of Operations shall be filed with and accepted by the Office of the State Engineer prior to plugging.

L FIL	ING FEE: There is no fi	ling fee for this fo	orm.					
II. GE	NERAL / WELL OWN	ERSHIP:						
Existin	g Office of the State En	gineer POD Nun	nber (Well Numb	er) for well	to be pl	ugged:	RA 06143 X2	
Name	of well owner: HollyFro	ntier Navajo Refir	ning LLC		•			
	g address: PO Box 159							
			State:	1	NM		Zip code:	88211
Phone:	number: 575-746-5487		E-n	ail: scott.de	nton@h	ollyfronti	er.com	
Ш. W	ELL DRILLER INFOR	RMATION:						
	riller contracted to provid		es: Talon LPE					
	lexico Well Driller Licens				Expirat	ion Date	7/31/2020	
			-		•			
IV. W	ELL INFORMATION:							
	A copy of the existing We	ell Record for the	well to be plugge	l should be a	ttached t	to this pl	an.	
			7 66			1		
1)	GPS Well Location:	Latitude:	32 deg, -104 deg,	51	min, _	23.5	_sec	
		Longitude:	-104deg,				_sec, WGS84 re decimal format.	
2)	Reason(s) for plugging	well:						
	This plan is for "Test W		een wells that wer	e installed be	tween 1	977 and	1982 and are no	longer in
	use.							
					· · · · · ·			
3)	Was well used for any t what hydrogeologic pa	ype of monitoring	g program? Ye	If yes,	please 1	ise section	on VII of this fo	rm to detail
	water, authorization fro							poor quanty
4)	Does the well tap brac	lrich coling on at	h omrviga maan assal	· · · · · · · · · · · · · · · · · · ·	Unknow	m re-		411 3-4-11
4)	_			ity water:		II y	es, provide addi	nonal detail,
	including analytical res		* * * * * * * * * * * * * * * * * * * *	or bearing u	nit range	from an	provimately 2 DD	D to 17 000
	mg/L, as reported in an	nual groundwater	monitoring report	ier-bearing ui S.	int range	; потпар	proximately 3,00	0 10 17,000
5)	Static water level:	6 to 10 feet	pelow land surface	y feet above	land sur	face (c	ircle one)	
6)	Depth of the well:	20 feet						

7)	Inside diameter of innermost casing: 8 inches.
8)	Casing material: steel
9)	The well was constructed with:  an open-hole production interval, state the open interval:  a well screen or perforated pipe, state the screened interval(s):  3 to 19 (according to OSE records)
10)	What annular interval surrounding the artesian casing of this well is cement-grouted? N/A
11)	Was the well built with surface casing?YesIf yes, is the annulus surrounding the surface casing grouted or otherwise sealed?Unknown If yes, please describe:
12)	Has all pumping equipment and associated piping been removed from the well?  N/A  If not, describe remaining equipment and intentions to remove prior to plugging in Section VII of this form.
V. DES	SCRIPTION OF PLANNED WELL PLUGGING:
pipe, a c	f this plan proposes to plug an artesian well in a way other than with cement grout, placed bottom to top with a tremie detailed diagram of the well showing proposed final plugged configuration shall be attached, as well as any additional information, such as geophysical logs, that are necessary to adequately describe the proposal.  Describe the method by which cement grout shall be placed in the well, or describe requested plugging methodology proposed for the well:  Lean cement grout will be placed in the boring from the bottom up using a tremie pipe.
2)	Will well head be cut-off below land surface after plugging? Yes - if the casing cannot be pulled
	UGGING AND SEALING MATERIALS:
Note: T	The plugging of a well that taps poor quality water may require the use of a specialty cement or specialty sealant
1)	For plugging intervals that employ cement grout, complete and attach Table A.
2)	For plugging intervals that will employ approved non-cement based sealant(s), complete and attach Table B.
3)	Theoretical volume of grout required to plug the well to land surface: 1.6-2 gallons (per well)
4)	Type of Cement proposed: Portland cement
5)	Proposed cement grout mix: 5 gallons of water per 94 pound sack of Portland cement.
6)	Will the grout be:batch-mixed and delivered to the siteXmixed on site

7)	Grout additives requested, and percent by dry	weight relative to cement:	
	25 lbs High Yield Bentonite to 470 lbs Portland	d cement	
8)	Additional notes and calculations:		
VII.	ADDITIONAL INFORMATION: List addition	nal information below, or on senarate sheets	(c)·
	ated in Section IV.2, the well was installed for mor	·	
mid-1	980's. Updated monitoring wells were installed in	the mid-1980's and data on the shallow gro	undwater quality is
repor	ted to NMED and OCD on an annual basis.		
	SIGNATURE:		
~,	ott Denton	say that I have carefully read the foregoing	Well Plugging Plan of
	tions and any attachments, which are a part hereo eer pertaining to the plugging of wells and will co		
Plugg	ing Plan of Operations and attachments are true to	the best of my knowledge and belief.	ie statements in the Wen
		1	cel 1
		w pot	
		Signature of Applicant	Date
IX. A	CTION OF THE STATE ENGINEER:		
This \	Well Plugging Plan of Operations is:		
	Approved subject to the attached cor	aditions.	
	Not approved for the reasons provide		
	Witness my hand and official seal this	day of	_,
		Tom Blaine P.E., New Mexico State	Engineer
		By:	

TABLE A - For plugging intervals that employ cement grout. Start with deepest interval.

	Interval 1 – deepest	Interval 2	Interval 3 – most shallow
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of grout placement (ft bgl)			0
Bottom of proposed interval of grout placement (ft bgl)			TD of well (~20 ft)
Theoretical volume of grout required per interval (gallons)			1.6-2
Proposed cement grout mix gallons of water per 94-lb. sack of Portland cement			5
Mixed on-site or batch- mixed and delivered?			Mix on-site
Grout additive 1 requested			
Additive 1 percent by dry weight relative to cement			
Grout additive 2 requested			
Additive 2 percent by dry weight relative to cement			

TABLE B - For plugging intervals that will employ approved non-cement based sealant(s). Start with deepest interval.

	Interval 1 – deepest	Interval 2	Interval 3 – most shallow
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of scalant placement (ft bgl)			
Bottom of proposed sealant of grout placement (ft bgl)			
Theoretical volume of sealant required per interval (gallons)			
Proposed abandonment sealant (manufacturer and trade name)			



## WELL PLUGGING PLAN OF OPERATIONS



NOTE: A Well Plugging Plan of Operations shall be filed with and accepted by the Office of the State Engineer prior to plugging.

i. Fii	LING FEE: There is no	filing fee for this fo	rm.						
II. G	ENERAL / WELL OWN	NERSHIP:				*			
Existi Name	of well owner: HollyFr	ngineer POD Num ontier Navajo Refin	iber (Well I	Number)	for we	ll to be p	lugged:	RA 06143 X3	
	ng address: PO Box 159								
			State:			NM		Zip code:	88211
Phone	number: <u>575-746-5487</u>			_ E-mail:	scott.	denton@l	hollyfront	ier.com	
HI. V	VELL DRILLER INFO	RMATION:							
	Driller contracted to provi		es: Talon L	PE					
	Mexico Well Driller Licen					Expira	tion Date	7/31/2020	
Note: 1) 2)	A copy of the existing W GPS Well Location:  Reason(s) for plugging	Latitude: Longitude:			51 20	min, _ min,	22.3 35.6		t.
	This plan is for "Test Wuse.		een wells tha	at were in	stalled	between '	1977 and	1982 and are no	o longer in
3)	Was well used for any what hydrogeologic p water, authorization from	arameters were mo	onitored. I	f the wel	l was	used to n	nonitor c	ontaminated or	orm to detail poor quality
4)	Does the well tap brace	kish, saline, or oth	nerwise poor	r quality v	water?	Unknov	vn If	yes, provide add	itional detail,
	including analytical res	sults and/or laborate	ory report(s)	):					
	TDS concentrations in mg/L, as reported in ar	nearby monitoring nnual groundwater	wells in san monitoring r	ne water-b eports.	earing	unit rang	e from ap	proximately 3,00	00 to 17,000
5)	Static water level:	9 feet 6	elow land si	urface/ fe	et abov	e land su	rface (c	circle one)	
6)	Depth of the well:	Unknown feet							

7)	Inside diameter of innermost casing:Unknowninches.					
8)	Casing material: steel					
9)	The well was constructed with:  an open-hole production interval, state the open interval:  a well screen or perforated pipe, state the screened interval(s):  Unknown					
10)	What annular interval surrounding the artesian casing of this well is cement-grouted? N/A					
11)	Was the well built with surface casing? If yes, is the annulus surrounding the surface casing grouted or otherwise sealed? Unknown If yes, please describe:					
12)	Has all pumping equipment and associated piping been removed from the well?  N/A  If not, describe remaining equipment and intentions to remove prior to plugging in Section VII of this form.					
V. DE	SCRIPTION OF PLANNED WELL PLUGGING:					
pipe, a technic	If this plan proposes to plug an artesian well in a way other than with cement grout, placed bottom to top with a tremie detailed diagram of the well showing proposed final plugged configuration shall be attached, as well as any additional al information, such as geophysical logs, that are necessary to adequately describe the proposal.					
1)	Describe the method by which cement grout shall be placed in the well, or describe requested plugging methodology proposed for the well:					
	Lean cement grout will be placed in the boring from the bottom up using a tremie pipe.					
2)	Will well head be cut-off below land surface after plugging? Yes - if the casing cannot be pulled					
VI. PI	UGGING AND SEALING MATERIALS:					
Note:	The plugging of a well that taps poor quality water may require the use of a specialty cement or specialty sealant					
1)	For plugging intervals that employ cement grout, complete and attach Table A.					
2)	For plugging intervals that will employ approved non-cement based sealant(s), complete and attach Table B.					
3)	Theoretical volume of grout required to plug the well to land surface: 1.6-2 gallons (per well)					
4)	Type of Cement proposed: Portland cement					
5)	Proposed cement grout mix: 5 gallons of water per 94 pound sack of Portland cement.					
6)	Will the grout be:batch-mixed and delivered to the siteX mixed on site					

7)	Grout additives requested, and percent by dry	weight relative to cement:	
	25 lbs High Yield Bentonite to 470 lbs Portland	cement	
8)	Additional notes and calculations:		
0)	Additional notes and calculations.		
	ADDITIONAL INFORMATION: List addition		
mid-1	ated in Section IV.2, the well was installed for mon 980's. Updated monitoring wells were installed in the to NMED and OCD on an annual basis.	itoring purposes, but has not been used for the mid-1980's and data on the shallow grou	monitoring since the undwater quality is
	P		
	SIGNATURE:		
٠,	tt Denton , stions and any attachments, which are a part hereo	say that I have carefully read the foregoing f; that I am familiar with the rules and regu	
	eer pertaining to the plugging of wells and will cong Plan of Operations and attachments are true to		e statements in the Well
	H.		99 / /
		Cignature of Applicant	9/26/
		Signature of Applicant	Date
IX. A	CTION OF THE STATE ENGINEER:		
This V	Vell Plugging Plan of Operations is:		
	Approved subject to the attached conNot approved for the reasons provide		
	Witness my hand and official seal this	day of	.,
		Tom Blaine P.E., New Mexico State	Engineer
		R <sub>10</sub>	

TABLE A - For plugging intervals that employ cement grout. Start with deepest interval.

	Interval 1 – deepest	Interval 2	Interval 3 – most shallow
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of grout placement (ft bgl)			0
Bottom of proposed interval of grout placement (ft bgl)			TD of well (~23 ft)
Theoretical volume of grout required per interval (gallons)			1.6-2
Proposed cement grout mix gallons of water per 94-lb. sack of Portland cement			5
Mixed on-site or batch- mixed and delivered?			Mix on-site
Grout additive 1 requested			
Additive 1 percent by dry weight relative to cement		F 84	
Grout additive 2 requested			
Additive 2 percent by dry weight relative to cement			

TABLE B - For plugging intervals that will employ approved non-cement based sealant(s). Start with deepest interval.

	Interval 1 – deepest	Interval 2	Interval 3 – most shallow
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of sealant placement (ft bgl)			
Bottom of proposed sealant of grout placement (ft bgl)			
Theoretical volume of sealant required per interval (gallons)			
Proposed abandonment sealant (manufacturer and trade name)	,		

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## WELL PLUGGING PLAN OF OPERATIONS



NOTE: A Well Plugging Plan of Operations shall be filed with and accepted by the Office of the State Engineer prior to plugging.

<u>I.                                    </u>	LING FEE: There is no fi	ling fee for this for	m.				
II. G	ENERAL / WELL OWN	ERSHIP:					
Existi	ng Office of the State En	gineer POD Numl	oer (Well 1	Number)	for well to be plugge	d: RA 06143	
	of well owner: HollyFro	ntier Navajo Refini	ng LLC			-	
Maili	ng address: PO Box 159						
City:	Artesia		State:		NM	Zip code: 88211 ontier.com	
Phone	e number: 575-746-5487			_ E-mail:	scott.denton@hollyfr	ontier.com	
<u> III. V</u>	VELL DRILLER INFOR	RMATION:					
Well	Driller contracted to provid	le plugging service	s: Talon Ll	PE	-		
New 1	Mexico Well Driller Licens	se No.: 1575			Expiration D	Date: 7/31/2020	
Note: 1) 2)	A copy of the existing Wo	Latitude: Longitude:			51 min, 18. 20 min, 16.		
2)	This plan is for "Test W	ell #3", one of sixte led is from the POI	o form for R	A 06143;	however, the well has	and 1982 and are no longer in not recently been physically	
3)		rameters were mo	nitored. I	f the wel	I was used to monito	ection VII of this form to detail or contaminated or poor quality I prior to plugging.	
4)	Does the well tap brac	kish, saline, or oth	erwise poor	r quality v	water?Unknown	If yes, provide additional detail	
	including analytical res	including analytical results and/or laboratory report(s):					
	TDS concentrations in mg/L, as reported in an				pearing unit range from	n approximately 3,000 to 17,000	
5)	Static water level:	6 to 10 feet be	elow land su	urface) fe	et above land surface	(circle one)	
6)	Depth of the well:	23 feet					

7)	Inside diameter of innermost casing:8inches.
8)	Casing material: steel
9)	The well was constructed with:  an open-hole production interval, state the open interval:  a well screen or perforated pipe, state the screened interval(s):  3 to 19 (according to OSE records)
10)	What annular interval surrounding the artesian casing of this well is cement-grouted? N/A
11)	Was the well built with surface casing? If yes, is the annulus surrounding the surface casing grouted or otherwise sealed? Unknown If yes, please describe:
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	proposed for the well:
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2)	Will well head be cut-off below land surface after plugging? Yes - if the casing cannot be pulled
VI. PI	LUGGING AND SEALING MATERIALS:
Note:	The plugging of a well that taps poor quality water may require the use of a specialty cement or specialty sealant
1)	For plugging intervals that employ cement grout, complete and attach Table A.
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4)	Type of Cement proposed: Portland cement
5)	Proposed cement grout mix: 5 gallons of water per 94 pound sack of Portland cement.
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7)	Grout additives requested, and percent by dry	weight relative to cement:	
	25 lbs High Yield Bentonite to 470 lbs Portland	d cement	•
8)	Additional notes and calculations:		
-,			······································
SZTT A	ADDITIONAL INFORMATION: List addition		(-).
			· · · · · · · · · · · · · · · · · · ·
As sta mid-19	ted in Section IV.2, the well was installed for mor 980's. Updated monitoring wells were installed in	itoring purposes, but has not been used for the mid-1980's and data on the shallow gro	monitoring since the undwater quality is
reporte	ed to NMED and OCD on an annual basis.	and the same same and the same of the same	anarrator quanty to
		-	
	SIGNATURE:		
L,		say that I have carefully read the foregoing	
	ions and any attachments, which are a part herec eer pertaining to the plugging of wells and will co		
	ng Plan of Operations and attachments are true to		ie statements in the wen
	9-11		
	Jest 1	In M.	00/08/18
		Signature of Applicant	Date
IX. A	CTION OF THE STATE ENGINEER:		
This W	/ell Plugging Plan of Operations is:		
	Approved subject to the attached cor	oditions	
	Not approved for the reasons provide		
	-		
	Witness my hand and official seal this	day of	_,
		Tom Blaine P.E., New Mexico State	Engineer
		Ву;	
		DJ:	

TABLE A - For plugging intervals that employ cement grout. Start with deepest interval.

	Interval 1 – deepest	Interval 2	Interval 3 – most shallow
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of grout placement (ft bgl)			0
Bottom of proposed interval of grout placement (ft bgl)			TD of well (~23 ft)
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Proposed cement grout mix gallons of water per 94-lb. sack of Portland cement			5
Mixed on-site or batch-mixed and delivered?			Mix on-site
Grout additive 1 requested			
Additive 1 percent by dry weight relative to cement			
Grout additive 2 requested			
Additive 2 percent by dry weight relative to cement			

TABLE B - For plugging intervals that will employ approved non-cement based sealant(s). Start with deepest interval.

	Interval 1 – deepest	Interval 2	Interval 3 – most shallow
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of sealant placement (ft bgl)			
Bottom of proposed sealant of grout placement (ft bgl)			
Theoretical volume of sealant required per interval (gallons)			
Proposed abandonment sealant (manufacturer and trade name)			



# WELL PLUGGING PLAN OF OPERATIONS



NOTE: A Well Plugging Plan of Operations shall be filed with and accepted by the Office of the State Engineer prior to plugging.

I. FIL	ING FEE: There is no fi	ling fee for this fo	rm.						
	NERAL / WELL OWN								
Existin Name	g Office of the State En of well owner: HollyFro	gineer POD Num ntier Navajo Refin	iber (Well i	Number)	for we	ll to be p	lugged:	RA 06143 X4	
Mailing	g address: PO Box 159								
City: _	Artesia		State	:		NM		Zip code	<u>88211</u>
Phone	number: <u>575-746-5487</u>			_ E-mail:	scott.	denton@h	nollyfront	ier.com	
III. W	ELL DRILLER INFOR	MATION:							
Well D	riller contracted to provid	e plugging service	es: Talon L	.PE					
	Iexico Well Driller Licens					Expira	tion Date	7/31/2020	
IV. W	ELL INFORMATION:								
	A copy of the existing We	ell Record for the	well to be p	lugged sh	ould be	e attached	to this pl	an.	
1)	GPS Well Location:	Latitude: Longitude:	32	_deg,	51	min, _	19.9	_sec	
		Longitude:	-104	_deg,				_sec, wGS84 are decimal form	
2)	Reason(s) for plugging	well:				_			
ŕ	This plan is for "Test W use. The location provio physically located. Addi	led is from the PO	D form for F	RA 06143	X4; ho	wever, the	well has	1982 and are not recently be	no longer in een
3)	Was well used for any t what hydrogeologic pa water, authorization fro	rameters were m	onitored.	If the wel	l was	used to n	nonitor c	ontaminated o	or poor quality
4)	Does the well tap brac	kish, saline, or oth	nerwise poo	or quality	water?	Unknov	vn If	ves, provide ad	lditional detail,
	including analytical res		_						,
	TDS concentrations in mg/L, as reported in an	nearby monitoring nual groundwater	wells in sar monitoring	ne water-l	pearing	unit rang	e from ap	pproximately 3,	000 to 17,000
5)	Static water level:	6 to 10 feet 6	elow land s	surface fe	eet abo	ve land su	rface (d	circle one)	
6)	Denth of the well	Jnknown <sub>feet</sub>							

7)	Inside diameter of innermost casing:inches.
8)	Casing material: steel
9)	The well was constructed with:  an open-hole production interval, state the open interval:  a well screen or perforated pipe, state the screened interval(s):  Unknown
10)	What annular interval surrounding the artesian casing of this well is cement-grouted? N/A
11)	Was the well built with surface casing?YesIf yes, is the annulus surrounding the surface casing grouted or otherwise sealed?Unknown If yes, please describe:
12)	Has all pumping equipment and associated piping been removed from the well?If not, describe remaining equipment and intentions to remove prior to plugging in Section VII of this form.
V. DE	SCRIPTION OF PLANNED WELL PLUGGING:
pipe, a	If this plan proposes to plug an artesian well in a way other than with cement grout, placed bottom to top with a tremie detailed diagram of the well showing proposed final plugged configuration shall be attached, as well as any additional al information, such as geophysical logs, that are necessary to adequately describe the proposal.  Describe the method by which cement grout shall be placed in the well, or describe requested plugging methodology proposed for the well:  Lean cement grout will be placed in the boring from the bottom up using a tremie pipe.
2)	Will well head be cut-off below land surface after plugging? Yes - if the casing cannot be pulled
VI, PL	UGGING AND SEALING MATERIALS:
Note:	The plugging of a well that taps poor quality water may require the use of a specialty cement or specialty sealant
1)	For plugging intervals that employ cement grout, complete and attach Table A.
2)	For plugging intervals that will employ approved non-cement based sealant(s), complete and attach Table B.
3)	Theoretical volume of grout required to plug the well to land surface: 1.6-2 gallons (per well)
4)	Type of Cement proposed: Portland cement
5)	Proposed cement grout mix: 5 gallons of water per 94 pound sack of Portland cement.
6)	Will the grout be:batch-mixed and delivered to the site mixed on site

7)	Grout additives requested, and percent by dry w	veight relative to cement:	
	25 lbs High Yield Bentonite to 470 lbs Portland	cement	
8)	Additional notes and calculations:		
3)	raditional notes and calculations.		
K 7 W W		1.0	
	DDITIONAL INFORMATION: List additional		
mid-19	ted in Section IV.2, the well was installed for monit 180's. Updated monitoring wells were installed in the ed to NMED and OCD on an annual basis.	oring purposes, but has not been used for mor ne mid-1980's and data on the shallow groundv	nitoring since the vater quality is
	· · · · · · · · · · · · · · · · · · ·		
VIII. 3	SIGNATURE:		
$_{ m I,}$ Scot	t Denton , sa	ay that I have carefully read the foregoing We	ll Plugging Plan of
	ions and any attachments, which are a part hereof	that I am familiar with the rules and regulation;	ons of the State
	er pertaining to the plugging of wells and will cor		atements in the Well
riuggii	ng Plan of Operations and attachments are true to	the best of my knowledge and benef.	
	A. A.	Man	مراعد الع
		C. C. Li	168119
		Signature of Applicant	Date
IX. A	CTION OF THE STATE ENGINEER:		
This W	ell Plugging Plan of Operations is:		
	Approved subject to the attached cond	litions.	
	Not approved for the reasons provided	d on the attached letter.	
	Witness my hand and official seal this	day of,	
		Tom Blaine P.E., New Mexico State Eng	ineer
		By:	

 $\label{thm:continuous} \textbf{TABLE}\ \textbf{A}\ \textbf{-}\ \textbf{For plugging intervals that employ cement grout.}\ \ \textbf{Start with deepest}$  interval.

	Interval 1 – deepest	Interval 2	Interval 3 – most shallow
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of grout placement (ft bgl)			0
Bottom of proposed interval of grout placement (ft bgl)			TD of well (~23 ft)
Theoretical volume of grout required per interval (gallons)			1.6-2
Proposed cement grout mix gallons of water per 94-lb. sack of Portland cement			5
Mixed on-site or batch- mixed and delivered?			Mix on-site
Grout additive 1 requested			
Additive 1 percent by dry weight relative to cement			
Grout additive 2 requested			
Additive 2 percent by dry weight relative to cement			

TABLE B - For plugging intervals that will employ approved non-cement based sealant(s). Start with deepest interval.

	Interval 1 – deepest	Interval 2	Interval 3 – most shallow
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of sealant placement (ft bgl)			
Bottom of proposed sealant of grout placement (ft bgl)			
Theoretical volume of sealant required per interval (gallons)			
Proposed abandonment sealant (manufacturer and trade name)			

		*	



Depth of the well:

6)

# WELL PLUGGING PLAN OF OPERATIONS



NOTE: A Well Plugging Plan of Operations shall be filed with and accepted by the Office of the State Engineer prior to plugging. **I. FILING FEE:** There is no filing fee for this form. II. GENERAL/WELLOWNERSHIP: Existing Office of the State Engineer POD Number (Well Number) for well to be plugged: RA 06143 X5 Name of well owner: HollyFrontier Navajo Refining LLC Mailing address: PO Box 159 City: Artesia Zip code: 88211 \_\_\_\_\_ State: \_\_\_ Phone number: <u>575-746-5487</u> \_\_\_\_ E-mail: scott.denton@hollyfrontier.com III. WELL DRILLER INFORMATION: Well Driller contracted to provide plugging services: Talon LPE Expiration Date: 7/31/2020 New Mexico Well Driller License No.: 1575 **IV. WELL INFORMATION:** Note: A copy of the existing Well Record for the well to be plugged should be attached to this plan. 1) GPS Well Location: Latitude: deg, \_\_\_ 3.9 sec. WGS84 min, Longitude: Check if seconds are decimal format. 2) Reason(s) for plugging well: This plan is for "Test Well #5", one of sixteen wells that were installed between 1977 and 1982 and are no longer in use 3) Was well used for any type of monitoring program? If yes, please use section VII of this form to detail what hydrogeologic parameters were monitored. If the well was used to monitor contaminated or poor quality water, authorization from the New Mexico Environment Department may be required prior to plugging. Does the well tap brackish, saline, or otherwise poor quality water? Unknown If yes, provide additional detail. 4) including analytical results and/or laboratory report(s): TDS concentrations in nearby monitoring wells in same water-bearing unit range from approximately 3,000 to 17,000 mg/L, as reported in annual groundwater monitoring reports. feet below land surface feet above land surface (circle one) 5) Static water level:

7)	Inside diameter of innermost casing: 8 inches.				
8)	Casing material: steel				
9)	The well was constructed with:  an open-hole production interval, state the open interval:  a well screen or perforated pipe, state the screened interval(s):  3 to 20 (according to OSE records)				
10)	What annular interval surrounding the artesian casing of this well is cement-grouted? N/A				
11)	Was the well built with surface casing? If yes, is the annulus surrounding the surface casing grouted or otherwise sealed? Unknown If yes, please describe:				
12)	Has all pumping equipment and associated piping been removed from the well?  N/A  If not, describe remaining equipment and intentions to remove prior to plugging in Section VII of this form.				
V. DE	SCRIPTION OF PLANNED WELL PLUGGING:				
pipe, a	If this plan proposes to plug an artesian well in a way other than with cement grout, placed bottom to top with a tremie detailed diagram of the well showing proposed final plugged configuration shall be attached, as well as any additional al information, such as geophysical logs, that are necessary to adequately describe the proposal.  Describe the method by which cement grout shall be placed in the well, or describe requested plugging methodology				
	proposed for the well:				
	Lean cement grout will be placed in the boring from the bottom up using a tremie pipe.				
2)	Will well head be cut-off below land surface after plugging? Yes - if the casing cannot be pulled				
VI. PI	UGGING AND SEALING MATERIALS:				
Note:	The plugging of a well that taps poor quality water may require the use of a specialty cement or specialty sealant				
1)	For plugging intervals that employ cement grout, complete and attach Table A.				
2)	For plugging intervals that will employ approved non-cement based sealant(s), complete and attach Table B.				
3)	Theoretical volume of grout required to plug the well to land surface: 1.6-2 gallons (per well)				
4)	Type of Cement proposed: Portland cement				
5)	Proposed cement grout mix: 5 gallons of water per 94 pound sack of Portland cement.				
6)	Will the grout be:batch-mixed and delivered to the site mixed on site				

7)	Grout additives requested, and percent by dry weight relative to cement:							
	25 lbs High Yield Bentonite to 470 lbs Portland	d cement						
8)	Additional notes and calculations:							
VII. A	ADDITIONAL INFORMATION: List addition	nal information below, or on separate sheet(	s):					
As sta	ated in Section IV.2, the well was installed for mor	nitoring purposes, but has not been used for	monitoring since the					
	980's. Updated monitoring wells were installed in ted to NMED and OCD on an annual basis.	the mid-1980's and data on the shallow grou	indwater quality is					
VIII.	SIGNATURE:							
	tt Dantan	say that I have carefully read the foregoing	Well Phioring Plan of					
	tions and any attachments, which are a part herec	of; that I am familiar with the rules and regu	lations of the State					
	eer pertaining to the plugging of wells and will coing Plan of Operations and attachments are true to		e statements in the Well					
		\ \	1					
	list	The state of the s	99 28 18					
		Signature of Applicant	Date					
WW7 A	CTYON OF THE CTATE IN COMPE							
<u>IX. A</u>	CTION OF THE STATE ENGINEER:							
This V	Well Plugging Plan of Operations is:							
	Approved subject to the attached cor	nditions.						
	Not approved for the reasons provide							
	Witness my hand and official seal this	day of	.,					
		Tom Blaine P.E., New Mexico State	Engineer					
		By;						

TABLE A - For plugging intervals that employ cement grout. Start with deepest interval.

	Interval 1 – deepest	Interval 2	Interval 3 – most shallow
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of grout placement (ft bgl)			0
Bottom of proposed interval of grout placement (ft bgl)			TD of well (~21 ft)
Theoretical volume of grout required per interval (gallons)			1.6-2
Proposed cement grout mix gallons of water per 94-lb. sack of Portland cement			5
Mixed on-site or batch- mixed and delivered?			Mix on-site
Grout additive 1 requested			
Additive 1 percent by dry weight relative to cement			
Grout additive 2 requested			
Additive 2 percent by dry weight relative to cement			

TABLE B - For plugging intervals that will employ approved non-cement based sealant(s). Start with deepest interval.

	Interval 1 – deepest	Interval 2	Interval 3 – most shallow
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of sealant placement (ft bgl)			
Bottom of proposed sealant of grout placement (ft bgl)			
Theoretical volume of sealant required per interval (gallons)			
Proposed abandonment sealant (manufacturer and trade name)			





I. FILI	NG FEE: There is no fi	ling fee for this fo	rm.						
II. GEI	NERAL / WELL OWN	ERSHIP:							
Existing	Office of the State En	gineer POD Num	ber (Well 1	Number)	for wel	ll to be p	lugged: F	RA 06143 X6	
Name o	f well owner: HollyFro	ntier Navajo Refin	ing LLC			-	-		
	address: PO Box 159								
City: A	rtesia		State:			NM		Zip code:	88211
Phone n	umber: 575-746-5487			E-mail:	scott.	denton@l	nollyfrontie	er.com	
				_					
III. WI	ELL DRILLER INFOR	MATION:							
Well Dr	iller contracted to provid	e plugging service	es: Talon L	PE					
	exico Well Driller Licens					Expira	tion Date:	7/31/2020	
						•			
IV. WI	ELL INFORMATION:								
	copy of the existing We	ell Record for the	well to be pl	lugged she	ould be	attached	to this pla	ın.	
			1						
1)	GPS Well Location:	Latitude: Longitude:	32	_deg,	51	min, _	36.2	_sec	
		Longitude:	-104	_deg,				_sec, WGS84 re decimal format	
2)	Reason(s) for plugging	well·				Check II	seconds at	e decimal format	•
_,	This plan is for "Test We		en wells th	at were in:	stalled	between 1	1977 and	1982 and are no	longer in
	use.	,	•						, iongo, iii
3)	Was well used for any t	ype of monitoring	program?	Yes	If ye	s, please	use sectio	n VII of this fo	orm to detail
	what hydrogeologic pa water, authorization from								poor quality
						•		1 00 0	
4)	Does the well tap brack	kish, saline, or oth	ierwise poor	r quality v	water?	UNKIOV	If y	es, provide add	itional detail,
	including analytical resu		2 1						
	TDS concentrations in r	nearby monitoring nual groundwater	wells in san monitoring r	ne water-b reports.	earing	unit range	e from app	proximately 3,00	00 to 17,000
	,	J. C.	۸	0,000					
5)	Static water level:	8 to 12feet(6	elow land si	urface) fe	et abov	ve land su	rface (ci	rcle one)	
6)		Inknown <sub>feet</sub>						•	

7)	Inside diameter of innermost casing:inches.
8)	Casing material: steel
9)	The well was constructed with:  an open-hole production interval, state the open interval:  a well screen or perforated pipe, state the screened interval(s):  Unknown
10)	What annular interval surrounding the artesian casing of this well is cement-grouted? N/A
11)	Was the well built with surface casing?YesIf yes, is the annulus surrounding the surface casing grouted or otherwise sealed?Unknown If yes, please describe:
12)	Has all pumping equipment and associated piping been removed from the well? N/A If not, describe remaining equipment and intentions to remove prior to plugging in Section VII of this form.
V. DE	SCRIPTION OF PLANNED WELL PLUGGING:
pipe, a	If this plan proposes to plug an artesian well in a way other than with cement grout, placed bottom to top with a tremie detailed diagram of the well showing proposed final plugged configuration shall be attached, as well as any additional al information, such as geophysical logs, that are necessary to adequately describe the proposal.
1)	Describe the method by which cement grout shall be placed in the well, or describe requested plugging methodology proposed for the well:
	Lean cement grout will be placed in the boring from the bottom up using a tremie pipe.
2)	Will well head be cut-off below land surface after plugging? Yes - if the casing cannot be pulled
VI. PI	UGGING AND SEALING MATERIALS:
Note:	The plugging of a well that taps poor quality water may require the use of a specialty cement or specialty sealant
1)	For plugging intervals that employ cement grout, complete and attach Table A.
2)	For plugging intervals that will employ approved non-cement based sealant(s), complete and attach Table B.
3)	Theoretical volume of grout required to plug the well to land surface: 1.6-2 gallons (per well)
4)	Type of Cement proposed: Portland cement
5)	Proposed cement grout mix: 5 gallons of water per 94 pound sack of Portland cement.
6)	Will the grout be:batch-mixed and delivered to the siteXmixed on site

7)	Grout additives requested, and percent by dry weight relative to cement:							
	25 lbs High Yield Bentonite to 470 lbs Portland	cement						
8)	Additional notes and calculations:							
	ADDITIONAL INFORMATION: List addition							
mid-1	ated in Section IV.2, the well was installed for moni 980's. Updated monitoring wells were installed in t ted to NMED and OCD on an annual basis.	itoring purposes, but has not been used for he mid-1980's and data on the shallow gro	monitoring since the undwater quality is					
	SIGNATURE:							
±,	ott Denton , stions and any attachments, which are a part hereo	say that I have carefully read the foregoing						
Engin	eer pertaining to the plugging of wells and will co	mply with them, and that each and all of the						
riugg	ing Plan of Operations and attachments are true to	the best of my knowledge and belief.						
	See	m tall						
		Signature of Applicant	Date					
IX. A	CTION OF THE STATE ENGINEER:							
This V	Well Plugging Plan of Operations is:							
	Approved subject to the attached con	ditions.						
	Not approved for the reasons provide	ed on the attached letter.						
	Witness my hand and official seal this	day of	,					
		Tom Blaine P.E., New Mexico State	Engineer					
		By						

TABLE A - For plugging intervals that employ cement grout. Start with deepest interval.

	Interval 1 – deepest	Interval 2	Interval 3 – most shallow
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of grout placement (ft bgl)			0
Bottom of proposed interval of grout placement (ft bgl)			TD of well (~23 ft)
Theoretical volume of grout required per interval (gallons)			1.6-2
Proposed cement grout mix gallons of water per 94-lb. sack of Portland cement			5
Mixed on-site or batch- mixed and delivered?			Mix on-site
Grout additive 1 requested			
Additive 1 percent by dry weight relative to cement			
Grout additive 2 requested			
Additive 2 percent by dry weight relative to cement			

TABLE B - For plugging intervals that will employ approved non-cement based sealant(s). Start with deepest interval.

	Interval 1 – deepest	Interval 2	Interval 3 – most shallow
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of sealant placement (ft bgl)			
Bottom of proposed sealant of grout placement (ft bgl)			
Theoretical volume of sealant required per interval (gallons)			
Proposed abandonment sealant (manufacturer and trade name)			





I. FIL	ING FEE: There is no fil	ing fee for this form	n.						
II. GE	NERAL / WELL OWNE	ERSHIP:							
Existin	g Office of the State Eng	gineer POD Numb	er (Well 1	Number) f	or wel	l to be p	lugged: _F	RA 06143 X7	
Name (	of well owner: HollyFror	ntier Navajo Refinin	g LLC						
	g address: PO Box 159			_					
City:			State:			NM		Zip code:	88211
Phone	number: 575-746-5487			 _ E-mail:	scott.	denton@h	ollyfrontie	er.com	
III. W	ELL DRILLER INFOR	MATION:							
Well D	riller contracted to provide	e plugging services	: Talon L	PE					
	lexico Well Driller License				-	_ Expira	tion Date:	7/31/2020	
IV. W	ELL INFORMATION:								
Note:	A copy of the existing Wel	ll Record for the w	ell to be p	lugged sho	ould be	attached	to this pla	ın.	
			_				•		
1)	GPS Well Location:	Latitude: Longitude:	32	_deg,	51	min, _	32.2	_sec	
		Longitude:	-104	_deg,	19	min, TCheck if	39.8	_sec, WGS84 re decimal format	
2)	Reason(s) for plugging v	vell:				Check ii	seconus ai	e decimal format	•
	This plan is for "Test We use. The location provide physically located. Additi	ed is from the POD	form for F	RA 06143 X	<7; hov	vever, the	well has		
3)	Was well used for any ty what hydrogeologic par water, authorization from	ameters were mor	nitored. I	f the well	was u	used to n	nonitor co	ontaminated or	
4)	Does the well tap brack	rish, saline, or othe	rwise poo	r quality v	vater? _	Unknov	vn If y	es, provide add	itional detail,
	including analytical resu	including analytical results and/or laboratory report(s):							
	TDS concentrations in n mg/L, as reported in ann				earing	unit range	e from app	oroximately 3,00	00 to 17,000
5)	Static water level:	nknown feet bel	low land s	urface fe	et abov	e land su	rface (ci	rcle one)	
6)	Depth of the well:	feet							

7)	Inside diameter of innermost casing:8inches.
8)	Casing material: steel
9)	The well was constructed with:  an open-hole production interval, state the open interval:  a well screen or perforated pipe, state the screened interval(s):  3 to 21 (according to OSE records)
10)	What annular interval surrounding the artesian casing of this well is cement-grouted? N/A
11)	Was the well built with surface casing? If yes, is the annulus surrounding the surface casing grouted or otherwise sealed? Unknown If yes, please describe:
12)	Has all pumping equipment and associated piping been removed from the well? N/A If not, describe remaining equipment and intentions to remove prior to plugging in Section VII of this form.
V. DES	SCRIPTION OF PLANNED WELL PLUGGING:
pipe, a c technica	f this plan proposes to plug an artesian well in a way other than with cement grout, placed bottom to top with a tremie detailed diagram of the well showing proposed final plugged configuration shall be attached, as well as any additional al information, such as geophysical logs, that are necessary to adequately describe the proposal.
1)	Describe the method by which cement grout shall be placed in the well, or describe requested plugging methodology
	proposed for the well:  Lean cement grout will be placed in the boring from the bottom up using a tremie pipe.
2)	Will well head be cut-off below land surface after plugging? Yes - if the casing cannot be pulled
VI. PL	UGGING AND SEALING MATERIALS:
Note: 7	The plugging of a well that taps poor quality water may require the use of a specialty cement or specialty sealant
1)	For plugging intervals that employ cement grout, complete and attach Table A.
2)	For plugging intervals that will employ approved non-cement based sealant(s), complete and attach Table B.
3)	Theoretical volume of grout required to plug the well to land surface: 1.6-2 gallons (per well)
4)	Type of Cement proposed: Portland cement
5)	Proposed cement grout mix: 5 gallons of water per 94 pound sack of Portland cement.
6)	Will the grout be:batch-mixed and delivered to the site mixed on site

7)	Grout additives requested, and percent by dry weight relative to cement:						
	25 lbs High Yield Bentonite to 470 lbs Portland	cement	•				
8)	Additional notes and calculations:						
VII. A	ADDITIONAL INFORMATION: List additional	al information below, or on separate sheet(s	s):				
As sta	ted in Section IV.2, the well was installed for moni	toring purposes, but has not been used for	monitoring since the				
	980's. Updated monitoring wells were installed in the to NMED and OCD on an annual basis.	he mid-1980's and data on the shallow grou	ındwater quality is				
Горон	to things and oob on an armidal basis.						
VIII.	SIGNATURE:						
	tt Dantan	ay that I have carefully read the foregoing	Wall Divaging Dian of				
<u> </u>	tions and any attachments, which are a part hereof						
Engine	eer pertaining to the plugging of wells and will co	mply with them, and that each and all of th					
Pluggi	ng Plan of Operations and attachments are true to	the best of my knowledge and belief.					
	At the	- tel	09/				
			[53/18.				
		Signature of Applicant	Date				
<u>IX. A</u>	CTION OF THE STATE ENGINEER:						
This V	Vell Plugging Plan of Operations is:						
	Approved subject to the attached cond	ditions					
	Not approved for the reasons provide						
	Witness my hand and official seal this	day of	,				
		Tom Blaine P.E., New Mexico State	Engineer				
		$R_{V'}$					

TABLE A - For plugging intervals that employ cement grout. Start with deepest interval.

	Interval 1 – deepest	Interval 2	Interval 3 – most shallow
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of grout placement (ft bgl)			0
Bottom of proposed interval of grout placement (ft bgl)			TD of well (~22 ft)
Theoretical volume of grout required per interval (gallons)			1.6-2
Proposed cement grout mix gallons of water per 94-lb. sack of Portland cement			5
Mixed on-site or batch- mixed and delivered?			Mix on-site
Grout additive 1 requested			
Additive 1 percent by dry weight relative to cement		-	
Grout additive 2 requested			
Additive 2 percent by dry weight relative to cement			

TABLE B - For plugging intervals that will employ approved non-cement based sealant(s). Start with deepest interval.

	Interval 1 – deepest	Interval 2	Interval 3 – most shallow
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of sealant placement (ft bgl)			
Bottom of proposed sealant of grout placement (ft bgl)			
Theoretical volume of sealant required per interval (gallons)			
Proposed abandonment sealant (manufacturer and trade name)			





I. FIL	<b>ING FEE:</b> There is no fi	ling fee for this form.						
	ENERAL/WELLOWN							
Existin	ng Office of the State En	gineer POD Number (V	Vell Nur	nber) for v	vell to be pl	ugged: RA	06143 X83	
	of well owner: HollyFro	ntier Navajo Refining LL	C					
	g address: PO Box 159							
City: _	Artesia		State: _		NM		Zip code:	88211
Phone	number: 575-746-5487		E	-mail: sco	ott.denton@h	ollyfrontier.c	om	
	ELL DRILLER INFOR		alon I PE					
	Oriller contracted to provid					7	7/31/2020	
New IV	Mexico Well Driller Licens	se No.:			Expirat	ion Date: _'	7517,2020	
	ELL INFORMATION:							
Note:	A copy of the existing We	ell Record for the well to	be plugg	ged should	be attached	to this plan.		
1)	GPS Well Location:	Latitude: 32	de	g <sub>.</sub> 51	min.	30.5 s	ec	
-,		Latitude: 32 Longitude: -10	4de	g, <u>19</u>				
					Check if	seconds are o	lecimal forma	t.
2)	Reason(s) for plugging							
		ell #8", one of sixteen we led is from the POD form						
	physically located. Addi	tional attempts will be m	ade to loc	cate the we	II for pluggin	g.	or rooching b	
3)	Was well used for any t	ype of monitoring progr	am?	Yes <sub>If</sub>	ves nlease i	ise section	VII of this t	form to detail
<i>.</i> ,	what hydrogeologic pa	rameters were monitore	ed. If th	ne well wa	s used to m	onitor cont	aminated or	
	water, authorization fro	m the New Mexico Envi	ronment	Departmen	nt may be rec	juired prior	to plugging.	
4)	Does the well tap brac	kish, saline, or otherwis	e poor qu	iality water	? Unknow	n If yes,	provide add	litional detail,
	including analytical results and/or laboratory report(s):							
	TDS concentrations in	nearby monitoring wells	n same v	vater-beari	ng unit range	from appro	ximately 3,0	00 to 17,000
	mg/L, as reported in an	nual groundwater monito	oring repo	orts.				
					<del></del>			
5)	Static water level:	Jnknown feet below l	and surfa	ice) feet at	ove land sur	face (circ)	e one)	
6)	Depth of the well:	Jnknown feet						

7)	Inside diameter of innermost casing:inches.
8)	Casing material: steel
9)	The well was constructed with:  an open-hole production interval, state the open interval:  a well screen or perforated pipe, state the screened interval(s):  unknown
10)	What annular interval surrounding the artesian casing of this well is cement-grouted? N/A
11)	Was the well built with surface casing?YesIf yes, is the annulus surrounding the surface casing grouted or otherwise sealed?Unknown If yes, please describe:
12)	Has all pumping equipment and associated piping been removed from the well?  N/A  If not, describe remaining equipment and intentions to remove prior to plugging in Section VII of this form.
V. DES	SCRIPTION OF PLANNED WELL PLUGGING:
pipe, a	f this plan proposes to plug an artesian well in a way other than with cement grout, placed bottom to top with a tremie detailed diagram of the well showing proposed final plugged configuration shall be attached, as well as any additional al information, such as geophysical logs, that are necessary to adequately describe the proposal.  Describe the method by which cement grout shall be placed in the well, or describe requested plugging methodology
,	proposed for the well:
	Lean cement grout will be placed in the boring from the bottom up using a tremie pipe.
2)	Will well head be cut-off below land surface after plugging? Yes - if the casing cannot be pulled
<u>VI. PL</u>	UGGING AND SEALING MATERIALS:
Note: 7	The plugging of a well that taps poor quality water may require the use of a specialty cement or specialty sealant
1)	For plugging intervals that employ cement grout, complete and attach Table A.
2)	For plugging intervals that will employ approved non-cement based sealant(s), complete and attach Table B.
3)	Theoretical volume of grout required to plug the well to land surface: 1.6-2 gallons (per well)
4)	Type of Cement proposed: Portland cement
5)	Proposed cement grout mix: 5 gallons of water per 94 pound sack of Portland cement.
6)	Will the grout be:batch-mixed and delivered to the site mixed on site

7)	Grout additives requested, and percent by dry v	weight relative to cement:	
	25 lbs High Yield Bentonite to 470 lbs Portland	cement	
8)	Additional notes and calculations:	· · · · · · · · · · · · · · · · · · ·	
VII. A	ADDITIONAL INFORMATION: List addition	al information below, or on separate sheet(s	i):
	ted in Section IV.2, the well was installed for moni		
	980's. Updated monitoring wells were installed in t	he mid-1980's and data on the shallow grou	ndwater quality is
reporte	ed to NMED and OCD on an annual basis.		
	CYCLL TUDE		
•	SIGNATURE:		
-,		say that I have carefully read the foregoing	
	ions and any attachments, which are a part hereo		
	eer pertaining to the plugging of wells and will co ng Plan of Operations and attachments are true to		statements in the Well
i iuggii	ng I ian of Operations and attachments are true to	the best of my knowledge and benef.	
	the state of the s	m the	9/20/2
	5		1/49/18
		Signature of Applicant	Date
IX. A	CTION OF THE STATE ENGINEER:		
	<del>-</del> "		
This W	Vell Plugging Plan of Operations is:		
	Approved subject to the attached con	ditions	
	Not approved for the reasons provide		
	Witness my hand and official seal this	day of	,
		Tom Blaine P.E., New Mexico State	Engineer
		Ву;	

TABLE A - For plugging intervals that employ cement grout. Start with deepest interval.

	Interval 1 – deepest	Interval 2	Interval 3 – most shallow
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of grout placement (ft bgl)			0
Bottom of proposed interval of grout placement (ft bgl)			TD of well (~23 ft)
Theoretical volume of grout required per interval (gallons)			1.6-2
Proposed cement grout mix gallons of water per 94-lb. sack of Portland cement			5
Mixed on-site or batch- mixed and delivered?			Mix on-site
Grout additive 1 requested			
Additive 1 percent by dry weight relative to cement			
Grout additive 2 requested			
Additive 2 percent by dry weight relative to cement			

TABLE B - For plugging intervals that will employ approved non-cement based sealant(s). Start with deepest interval.

	Interval 1 – deepest	Interval 2	Interval 3 – most shallow
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of sealant placement (ft bgl)			
Bottom of proposed sealant of grout placement (ft bgl)			
Theoretical volume of sealant required per interval (gallons)			
Proposed abandonment sealant (manufacturer and trade name)			

			×	
		s		





NOTE: A Well Plugging Plan of Operations shall be filed with and accepted by the Office of the State Engineer prior to plugging.

I. FIL	ING FEE: There is no fi	lling fee for this fo	rm.						
II. GE	NERAL / WELL OWN	ERSHIP:							
Existin Name	of well owner: HollyFro	gineer POD Num Intier Navajo Refin	ber (Well ) ing LLC	Number)	for we	ll to be p	lugged: _F	RA 06143 X9	
	g address: PO Box 159								
City: _			State:			NM		Zip code:	88211
Phone	number: 575-746-5487			_ E-mail:	scott.	.denton@l	nollyfrontie	er.com	
HI. W	ELL DRILLER INFOR	RMATION:							
	Oriller contracted to provide		es: Talon L	PE					
	fexico Well Driller Licens					Exnira	tion Date:	7/31/2020	
<u>IV. W</u>	ELL INFORMATION:								
Note:	A copy of the existing W	ell Record for the	well to be p	lugged sh	ould be	e attached	to this pla	ın.	
	and		0.0		<b>5</b> 4		4.4.0		
1)	GPS Well Location:	Latitude: Longitude:	-104	_deg, _deg	20	min, _ min	14.0 54.8	_sec_WGS84	
		Longitude.		_005,				re decimal forma	t.
2)	Reason(s) for plugging	well:							
	This plan is for "Test W	ell #9", one of sixte	en wells th	at were in	stalled	between	1977 and	1982 and are n	o longer in
	use. The well appears t	o be silted in at ab	out 4.2 ft be	low grour	nd.				
				Vas					
3)	Was well used for any twhat hydrogeologic pa								
	water, authorization fro								poor quanty
4)	Does the well tap brac	kich colina or oth	omvice nee	• analitar	rrotor?	Unknov	wn <sub>If v</sub>	oo maarido odd	litianal datail
7)					water:		11 y	es, provide add	iilioliai detaii,
	including analytical res			<u> </u>	oo oring	Lunit rong	o from one	aravimataly 2.0	00 to 17 000
	mg/L, as reported in an	inual groundwater	monitoring	reports.	Jeanny	uriit rang	е попгард	oroximately 3,0	00 10 17,000
5)	Static water level:	>4.2 ft feet b	elow land s	urface) fe	eet abo	ve land su	rface (ci	rcle one)	
6)	Depth of the well:	04							

Well Plugging Plan Version: 06/30/2017 Page 1 of 5

7)	Inside diameter of innermost casing: 8 inches.
8)	Casing material: steel
9)	The well was constructed with:  an open-hole production interval, state the open interval:  a well screen or perforated pipe, state the screened interval(s):  3 to 20 (according to OSE records)
10)	What annular interval surrounding the artesian casing of this well is cement-grouted? N/A
11)	Was the well built with surface casing? Yes If yes, is the annulus surrounding the surface casing grouted or otherwise sealed? Unknown If yes, please describe:
12)	Has all pumping equipment and associated piping been removed from the well? N/A If not, describe remaining equipment and intentions to remove prior to plugging in Section VII of this form.
V. DI	ESCRIPTION OF PLANNED WELL PLUGGING:
pipe, a	If this plan proposes to plug an artesian well in a way other than with cement grout, placed bottom to top with a tremie a detailed diagram of the well showing proposed final plugged configuration shall be attached, as well as any additional cal information, such as geophysical logs, that are necessary to adequately describe the proposal.  Describe the method by which cement grout shall be placed in the well, or describe requested plugging methodology proposed for the well:  Lean cement grout will be placed in the boring from the bottom up using a tremie pipe.
2)	Will well head be cut-off below land surface after plugging? Yes - if the casing cannot be pulled
VI. P	LUGGING AND SEALING MATERIALS:
Note:	The plugging of a well that taps poor quality water may require the use of a specialty cement or specialty sealant
1)	For plugging intervals that employ cement grout, complete and attach Table A.
2)	For plugging intervals that will employ approved non-cement based sealant(s), complete and attach Table B.
3)	Theoretical volume of grout required to plug the well to land surface: 1.6-2 gallons (per well)
4)	Type of Cement proposed: Portland cement
5)	Proposed cement grout mix: 5 gallons of water per 94 pound sack of Portland cement.
6)	Will the grout be:batch-mixed and delivered to the site mixed on site

7)	Grout additives requested, and percent by dry weight relative to cement:							
	25 lbs High Yield Bentonite to 470 lbs Portland	cement						
8)	Additional notes and calculations:							
VII. A	DDITIONAL INFORMATION: List addition	nal information below, or on separate sheet(s	5):					
As stat	ted in Section IV.2, the well was installed for mon	itoring purposes, but has not been used for	monitoring since the					
mid-19 reporte	80's. Updated monitoring wells were installed in a to NMED and OCD on an annual basis.	the mid-1980's and data on the shallow grou	indwater quality is					
ороги	and to times and o'es on an armidal sacis.							
VIII.	SIGNATURE:							
$_{ m I,}$ Scot	t Denton	say that I have carefully read the foregoing	Well Plugging Plan of					
	ions and any attachments, which are a part hereo	f; that I am familiar with the rules and regul	lations of the State					
	er pertaining to the plugging of wells and will cong Plan of Operations and attachments are true to		e statements in the Well					
ruggn	ig Fran of Operations and attachments are true to	the best of my knowledge and benefit.	· 1					
	that	- Let	09 38/18					
		Signature of Applicant	Date					
		Signature of Applicant	Date					
IX. A	CTION OF THE STATE ENGINEER:							
This W	Vell Plugging Plan of Operations is:							
	Approved subject to the attached con	aditions.						
	Not approved for the reasons provide	ed on the attached letter.						
	Witness my hand and official seal this	day of	,					
		Tom Blaine P.E., New Mexico State	Engineer					
		Ву;						

TABLE A - For plugging intervals that employ cement grout. Start with deepest interval.

	Interval 1 – deepest	Interval 2	Interval 3 – most shallow
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of grout placement (ft bgl)			0
Bottom of proposed interval of grout placement (ft bgl)			TD of well (~21 ft)
Theoretical volume of grout required per interval (gallons)			1.6-2
Proposed cement grout mix gallons of water per 94-lb. sack of Portland cement			5
Mixed on-site or batch- mixed and delivered?			Mix on-site
Grout additive 1 requested			
Additive 1 percent by dry weight relative to cement			
Grout additive 2 requested			
Additive 2 percent by dry weight relative to cement			

TABLE B - For plugging intervals that will employ approved non-cement based sealant(s). Start with deepest interval.

	Interval 1 – deepest	Interval 2	Interval 3 – most shallow
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of sealant placement (ft bgl)			
Bottom of proposed sealant of grout placement (ft bgl)			
Theoretical volume of sealant required per interval (gallons)			
Proposed abandonment sealant (manufacturer and trade name)			





	ENERAL / WELL OWN		<b>3.</b> 1 \ \ .	C 11 . 1 . 1	1 F	RA 06143 X10		
Existi	ng Office of the State En	ngineer POD Number (Well ontier Navajo Refining LLC	Number)	for well to be pl	ugged: <u>'</u>			
	ng address: PO Box 159							
City	Artesia	State		NM		Zin code: 8	 8211	
Phone	e number: 575-746-5487	State	E-mail:	scott.denton@h	ollyfrontie	er.com		
III. V	WELL DRILLER INFO	RMATION:						
-		de plugging services: Talon	LPE					
		se No.: 1575		Expirat	ion Date:	7/31/2020		
Note: 1) 2)	GPS Well Location:  Reason(s) for plugging		deg, deg,	51 min, 19 min, Check if	22.9 38.1 seconds ar	_sec, WGS84		
	This plan is for "Test Wuse.	/ell #10", one of sixteen wells	that were i	nstalled between	1977 and	1982 and are no	longer in	
3)	what hydrogeologic p	type of monitoring program? arameters were monitored, om the New Mexico Environr	If the wel	l was used to m	onitor co	ontaminated or po	n to detail oor quality	
4)	Does the well tap bra	ckish, saline, or otherwise po	or quality v	vater? Unknow	n If y	es, provide addition	onal detail,	
	including analytical re-	including analytical results and/or laboratory report(s):						
		nearby monitoring wells in sa nnual groundwater monitoring		pearing unit range	from app	proximately 3,000	to 17,000	
5)	Static water level:	6 to 12feet below land	surface fe	et above land sur	face (ci	rcle one)		
6)	Depth of the well:	Unknown feet						

7)	Inside diameter of innermost casing:Unknowninches.
8)	Casing material: steel
9)	The well was constructed with:  an open-hole production interval, state the open interval:  a well screen or perforated pipe, state the screened interval(s):  Unknown
10)	What annular interval surrounding the artesian casing of this well is cement-grouted? N/A
11)	Was the well built with surface casing?YesIf yes, is the annulus surrounding the surface casing grouted or otherwise sealed?UnknownIf yes, please describe:
12)	Has all pumping equipment and associated piping been removed from the well? N/A If not, describe remaining equipment and intentions to remove prior to plugging in Section VII of this form.
<u>V. DE</u>	ESCRIPTION OF PLANNED WELL PLUGGING:
pipe, a	If this plan proposes to plug an artesian well in a way other than with cement grout, placed bottom to top with a tremie detailed diagram of the well showing proposed final plugged configuration shall be attached, as well as any additional cal information, such as geophysical logs, that are necessary to adequately describe the proposal.
1)	Describe the method by which cement grout shall be placed in the well, or describe requested plugging methodology proposed for the well:
	Lean cement grout will be placed in the boring from the bottom up using a tremie pipe.
2)	Will well head be cut-off below land surface after plugging? Yes - if the casing cannot be pulled
VI. P	LUGGING AND SEALING MATERIALS:
Note:	The plugging of a well that taps poor quality water may require the use of a specialty cement or specialty sealant
1)	For plugging intervals that employ cement grout, complete and attach Table A.
2)	For plugging intervals that will employ approved non-cement based sealant(s), complete and attach Table B.
3)	Theoretical volume of grout required to plug the well to land surface: 1.6-2 gallons (per well)
4)	Type of Cement proposed: Portland cement
5)	Proposed cement grout mix: 5 gallons of water per 94 pound sack of Portland cement.
6)	Will the grout be:batch-mixed and delivered to the siteX mixed on site

7)	Grout additives requested, and percent by dry weight relative to cement:						
	25 lbs High Yield Bentonite to 470 lbs Portland	cement					
8)	Additional notes and calculations:	-					
	:						
VII.	ADDITIONAL INFORMATION: List addition	nal information below, or on separate sheet(s	):				
	ated in Section IV.2, the well was installed for mon						
mid-1	980's. Updated monitoring wells were installed in	the mid-1980's and data on the shallow grou	ndwater quality is				
report	ted to NMED and OCD on an annual basis.						
X/III	CICNATIDE.						
	SIGNATURE: ott Denton	and the famous of the famous in a	Wall Divasion Diam of				
	itions and any attachments, which are a part herec	say that I have carefully read the foregoing of: that I am familiar with the rules and regul					
Engin	eer pertaining to the plugging of wells and will co	omply with them, and that each and all of the					
Plugg	ing Plan of Operations and attachments are true to	o the best of my knowledge and belief.					
	The state of the s	the man	09/2/2				
			120110				
		Signature of Applicant	Date				
IX. A	ACTION OF THE STATE ENGINEER:						
This \	Well Plugging Plan of Operations is:						
	Approved subject to the attached con	nditions.					
	Not approved for the reasons provid						
	Witness my hand and official seal this	day of	,				
		Tom Blaine P.E., New Mexico State	Engineer				
		Ву:					
		J					

TABLE A - For plugging intervals that employ cement grout. Start with deepest interval.

	Interval 1 – deepest	Interval 2	Interval 3 – most shallow
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of grout placement (ft bgl)			0
Bottom of proposed interval of grout placement (ft bgl)			TD of well (~23 ft)
Theoretical volume of grout required per interval (gallons)			1.6-2
Proposed cement grout mix gallons of water per 94-lb. sack of Portland cement			5
Mixed on-site or batch- mixed and delivered?			Mix on-site
Grout additive 1 requested			
Additive 1 percent by dry weight relative to cement		- 4.	
Grout additive 2 requested			
Additive 2 percent by dry weight relative to cement			

TABLE B - For plugging intervals that will employ approved non-cement based sealant(s). Start with deepest interval.

	Interval 1 – deepest	Interval 2	Interval 3 – most shallow
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of sealant placement (ft bgl)			
Bottom of proposed sealant of grout placement (ft bgl)			
Theoretical volume of sealant required per interval (gallons)			
Proposed abandonment sealant (manufacturer and trade name)			





II. GE	NERAL / WELL OWN	ERSHIP:							
Existin	g Office of the State En	gineer POD Numb	er (Well	Number)	for we	ll to be pl	lugged: _	RA 06143 X11	
Name	of well owner: HollyFro	ntier Navajo Refini	ng LLC						
	g address: PO Box 159								
City:	Artesia		State	:		NM		Zip code: 8	8211
Phone	number: 575-746-5487			_ E-mail:	scott.	denton@h	ollyfronti	er.com	
III. W	ELL DRILLER INFOR	MATION:							
	Oriller contracted to provid		s. Talon L	PE.					
	fexico Well Driller Licens					Expirat	tion Date:	7/31/18	
	ELL INFORMATION:								
Note:	A copy of the existing We	ell Record for the v	vell to be p	lugged sh	ould be	e attached	to this pla	an.	
1)	GPS Well Location:	Latitude:	32	dea	51	min	4.1	Sec	
1)	of 5 weir Location.	Latitude: Longitude:	-104	_deg, _deg,	22	min, _ min,	32.8	_sec, WGS84	
					į	Check if	seconds a	re decimal format.	
2)	Reason(s) for plugging	well:							
	This plan is for "Test Wuse. The location provide physically located. Addi	led is from the POI	o form for I	RA 06143	X11; h	owever, th	e well ha	d 1982 and are no s not recently beer	longer in n
3)	Was well used for any t what hydrogeologic pa water, authorization fro	rameters were mo	nitored.	If the wel	l was	used to n	nonitor c	ontaminated or pe	m to detai oor quality
4)	Does the well tap brac	kish, saline, or oth	erwise poo	or quality	water?	Unknov	wnIfy	es, provide additi	onal detail
	including analytical res	ults and/or laborate	ory report(s	s):					
	TDS concentrations in mg/L, as reported in an	nearby monitoring nual groundwater r	wells in sar monitoring	me water-l reports.	pearing	unit rang	e from ap	proximately 3,000	to 17,000
5)	Static water level:	6 to 10 feet be	elow land s	surface fe	eet abo	ve land su	rface (c	ircle one)	
6)	Depth of the well:	Jnknown feet							

7)	Inside diameter of innermost casing:Unknowninches.
8)	Casing material: steel
9)	The well was constructed with:  an open-hole production interval, state the open interval:  a well screen or perforated pipe, state the screened interval(s):  Unknown
10)	What annular interval surrounding the artesian casing of this well is cement-grouted? N/A
11)	Was the well built with surface casing?YesIf yes, is the annulus surrounding the surface casing grouted or otherwise sealed?UnknownIf yes, please describe:
12)	Has all pumping equipment and associated piping been removed from the well? N/A If not, describe remaining equipment and intentions to remove prior to plugging in Section VII of this form.
V. DE	SCRIPTION OF PLANNED WELL PLUGGING:
pipe, a	If this plan proposes to plug an artesian well in a way other than with cement grout, placed bottom to top with a tremie detailed diagram of the well showing proposed final plugged configuration shall be attached, as well as any additional real information, such as geophysical logs, that are necessary to adequately describe the proposal.  Describe the method by which cement grout shall be placed in the well, or describe requested plugging methodology
-,	proposed for the well:
	Lean cement grout will be placed in the boring from the bottom up using a tremie pipe.
2)	Will well head be cut-off below land surface after plugging? Yes - if the casing cannot be pulled
<u>VI. P</u>	LUGGING AND SEALING MATERIALS:
Note:	The plugging of a well that taps poor quality water may require the use of a specialty cement or specialty sealant
1)	For plugging intervals that employ cement grout, complete and attach Table A.
2)	For plugging intervals that will employ approved non-cement based sealant(s), complete and attach Table B.
3)	Theoretical volume of grout required to plug the well to land surface: 1.6-2 gallons (per well)
4)	Type of Cement proposed: Portland cement
5)	Proposed cement grout mix: 5 gallons of water per 94 pound sack of Portland cement.
6)	Will the grout be:batch-mixed and delivered to the site mixed on site

7)	Grout additives requested, and percent by dry	weight relative to cement:	
	25 lbs High Yield Bentonite to 470 lbs Portland	cement	
8)	Additional notes and calculations:		
VII.	ADDITIONAL INFORMATION: List addition	al information below or on senarate sheet(s	.)·
	ated in Section IV.2, the well was installed for moni		<u></u>
mid-1	980's. Updated monitoring wells were installed in t ted to NMED and OCD on an annual basis.		
	SIGNATURE:		
<u> </u>	ott Denton  tions and any attachments, which are a part hereo	say that I have carefully read the foregoing of that I am familiar with the rules and regul	
Engin	eer pertaining to the plugging of wells and will co	emply with them, and that each and all of the	
Plugg	ing Plan of Operations and attachments are true to	the best of my knowledge and belief.	
	there	m W	वर्व रङ ।ह
		Signature of Applicant	Date
IX. A	ACTION OF THE STATE ENGINEER:		
This '	Well Plugging Plan of Operations is:		
	Approved subject to the attached con	ditions	
	Not approved for the reasons provide		
	Witness my hand and official seal this	day of	,
		Tom Blaine P.E., New Mexico State	Engineer
		By:	

TABLE A - For plugging intervals that employ cement grout. Start with deepest interval.

	Interval 1 – deepest	Interval 2	Interval 3 – most shallow
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of grout placement (ft bgl)			0
Bottom of proposed interval of grout placement (ft bgl)			TD of well (~23 ft)
Theoretical volume of grout required per interval (gallons)		-	1.6-2
Proposed cement grout mix gallons of water per 94-lb. sack of Portland cement		,	5
Mixed on-site or batch- mixed and delivered?			Mix on-site
Grout additive 1 requested			
Additive 1 percent by dry weight relative to cement		8	
Grout additive 2 requested			
Additive 2 percent by dry weight relative to cement			

TABLE B - For plugging intervals that will employ approved non-cement based sealant(s). Start with deepest interval.

	Interval 1 – deepest	Interval 2	Interval 3 – most shallow
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of sealant placement (ft bgl)			
Bottom of proposed sealant of grout placement (ft bgl)			
Theoretical volume of scalant required per interval (gallons)			
Proposed abandonment sealant (manufacturer and trade name)			





EVISII	ing Office of the State E	ngineer POD Number (We	ii Number)	for well to be plug	ged:
		ontier Navajo Refining LLC			
Mailii	ng address: PO Box 159				
City:	Artesia	Sta	ite:	NM	Zip code: 88211
Phone	e number: 575-746-5487		E-mail:	scott.denton@holl	Zip code: 88211 yfrontier.com
<u>III. V</u>	VELL DRILLER INFO	RMATION:			
Well 1	Driller contracted to provi	de plugging services: Talo	n LPE		
New I	Mexico Well Driller Lice	nse No.: 1575		Expiration	n Date: 7/31/18
IV. V	VELL INFORMATION	o e			
		ell Record for the well to be	e nlugged sh	ould be attached to	this nlan
		The second secon	o pragged on	oura of anaonoa to	ino pian.
1)	GPS Well Location:	Latitude:32	deg,	51 min,	13.9 sec
		Latitude: 32 Longitude: -104	deg,		
				Check if sec	conds are decimal format.
2)	Reason(s) for plugging				
	This plan is for "Test V use.	Vell #12", one of sixteen well	s that were i	nstalled between 19	77 and 1982 and are no longer in
	use.				
2)			- Vac		
3)	Was well used for any	type of monitoring program	If the wel	If yes, please use	section VII of this form to detail
		om the New Mexico Environ			
4)	Dage the small too how	-1-1-1	114	. a Unknown	TC
4)		_		water?	If yes, provide additional detail
		sults and/or laboratory repor	<u>`</u>		
	TDS concentrations in	nearby monitoring wells in : nnual groundwater monitorir	same water-l og reports	pearing unit range fr	om approximately 3,000 to 17,000
	,gr =,e	groundier monitori	.g .opoo.		
5)	Static water level:	6 to 10 feet below land	d surface) fe	eet above land surface	ce (circle one)
,				301	(
6)	Depth of the well: 19	(10g)/ 14.8 1D feet			

7)	Inside diameter of innermost casing:Unknowninches.
8)	Casing material: steel
9)	The well was constructed with:  an open-hole production interval, state the open interval:  a well screen or perforated pipe, state the screened interval(s):  3 to 18 ft bgs
10)	What annular interval surrounding the artesian casing of this well is cement-grouted? N/A
11)	Was the well built with surface casing?YesIf yes, is the annulus surrounding the surface casing grouted or otherwise sealed?UnknownIf yes, please describe:
12)	Has all pumping equipment and associated piping been removed from the well? N/A If not, describe remaining equipment and intentions to remove prior to plugging in Section VII of this form.
V. DES	SCRIPTION OF PLANNED WELL PLUGGING:
pipe, a c	f this plan proposes to plug an artesian well in a way other than with cement grout, placed bottom to top with a tremie detailed diagram of the well showing proposed final plugged configuration shall be attached, as well as any additional information, such as geophysical logs, that are necessary to adequately describe the proposal.
1)	Describe the method by which cement grout shall be placed in the well, or describe requested plugging methodology
	proposed for the well:  Lean cement grout will be placed in the boring from the bottom up using a tremie pipe.
2)	Will well head be cut-off below land surface after plugging? Yes - if the casing cannot be pulled
VI. PL	UGGING AND SEALING MATERIALS:
Note: 7	The plugging of a well that taps poor quality water may require the use of a specialty cement or specialty sealant
1)	For plugging intervals that employ cement grout, complete and attach Table A.
2)	For plugging intervals that will employ approved non-cement based sealant(s), complete and attach Table B.
3)	Theoretical volume of grout required to plug the well to land surface: 1.6-2 gallons (per well)
4)	Type of Cement proposed: Portland cement
5)	Proposed cement grout mix: 5 gallons of water per 94 pound sack of Portland cement.
6)	Will the grout be:batch-mixed and delivered to the siteX mixed on site

7)	Grout additives requested, and percent by dry v	weight relative to cement:	
	25 lbs High Yield Bentonite to 470 lbs Portland	cement	
8)	Additional notes and calculations:		
0)	Additional notes and calculations.		
			ē.
VII.	ADDITIONAL INFORMATION: List addition	al information below or on separate sheet(s)	,
	ated in Section IV.2, the well was installed for moni		
mid-1	980's. Updated monitoring wells were installed in t ted to NMED and OCD on an annual basis.		
	SIGNATURE:		
-,		say that I have carefully read the foregoing V	
	tions and any attachments, which are a part hereoger pertaining to the plugging of wells and will co		
Plugg	ing Plan of Operations and attachments are true to	the best of my knowledge and belief.	
		m	99/20/18
		Signature of Applicant	Date
		Signature of Applicant	Date
IX. A	CTION OF THE STATE ENGINEER:		
This \	Well Plugging Plan of Operations is:		
	Approved subject to the attached con	ditions.	
	Not approved for the reasons provide		
	Witness my hand and official seal this	day of,	
		Tom Blaine P.E., New Mexico State E	ngineer
		R <sub>V</sub>	

TABLE A - For plugging intervals that employ cement grout. Start with deepest interval.

	Interval 1 – deepest	Interval 2	Interval 3 – most shallow
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of grout placement (ft bgl)			0
Bottom of proposed interval of grout placement (ft bgl)			TD of well (~19 ft)
Theoretical volume of grout required per interval (gallons)			1.6-2
Proposed cement grout mix gallons of water per 94-lb. sack of Portland cement			5
Mixed on-site or batch- mixed and delivered?			Mix on-site
Grout additive 1 requested			
Additive 1 percent by dry weight relative to cement			
Grout additive 2 requested			
Additive 2 percent by dry weight relative to cement			

TABLE B - For plugging intervals that will employ approved non-cement based sealant(s). Start with deepest interval.

	Interval 1 – deepest	Interval 2	Interval 3 – most shallow
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of sealant placement (ft bgl)			
Bottom of proposed sealant of grout placement (ft bgl)			
Theoretical volume of sealant required per interval (gallons)			
Proposed abandonment sealant (manufacturer and trade name)			





NOTE: A Well Plugging Plan of Operations shall be filed with and accepted by the Office of the State Engineer prior to plugging.

I. FIL	ING FEE: There is no fi	ling fee for this fo	orm.					
II. GE	NERAL / WELL OWN	ERSHIP:						
Existin	g Office of the State En	gineer POD Nun	nber (Well Numb	er) for wel	ll to be p	lugged:	RA 06143 X13	
Name	of well owner: HollyFro	ntier Navajo Refir	ning LLC					
	g address: PO Box 159							
City:			State:		NM		Zip code: 8	8211
Phone	number: 575-746-5487		E-n	nail: scott.	denton@ł	nollyfronti	er.com	
m w	ELL DRILLER INFOR	MATION:						
	Oriller contracted to provid		as. Talon LPE					
	fexico Well Driller Licens		cs.		Emina		7/31/2020	
New IV	lexico well Driller Licens	se No.:			Expira	tion Date	:	
	ELL INFORMATION:							
Note:	A copy of the existing We	ell Record for the	well to be plugge	d should be	e attached	to this pl	an.	
1)	GPS Well Location:	Latitude:	32 deg.	51	min.	13.4	sec	
-)		Longitude:	32 deg, -104 deg,	20	min, _	5.4	_sec, WGS84	
					Check if	seconds a	re decimal format.	
2)	Reason(s) for plugging	well:						
	This plan is for "Test Wouse. The location provice physically located. Addi	led is from the PC	D form for RA 06	143 X13; ho	owever, th	e well ha		
3)	Was well used for any t what hydrogeologic pa water, authorization fro	rameters were m	onitored. If the	well was	used to n	nonitor c	ontaminated or pe	
4)	Does the well tap brac	kish, saline, or ot	herwise poor qua	ity water?	Unknov	vn If	yes, provide additi	onal detail,
	including analytical res							
	TDS concentrations in a	nearby monitoring nual groundwater	wells in same wa monitoring report	ter-bearing s.	unit rang	e from ap	proximately 3,000	to 17,000
5)	Static water level:	6 to 10 feet	pelow land surface	ey feet abov	ve land su	rface (d	circle one)	
6)	Depth of the well:	21 feet						

Well Plugging Plan Version: 06/30/2017 Page 1 of 5

7)	Inside diameter of innermost casing:8inches.
8)	Casing material: steel
9)	The well was constructed with:  an open-hole production interval, state the open interval:  a well screen or perforated pipe, state the screened interval(s):  3 to 20 ft bgs
10)	What annular interval surrounding the artesian casing of this well is cement-grouted? N/A
11)	Was the well built with surface casing? If yes, is the annulus surrounding the surface casing grouted or otherwise sealed? Unknown If yes, please describe:
12)	Has all pumping equipment and associated piping been removed from the well?If not, describe remaining equipment and intentions to remove prior to plugging in Section VII of this form.
V. DES	SCRIPTION OF PLANNED WELL PLUGGING:
pipe, a	f this plan proposes to plug an artesian well in a way other than with cement grout, placed bottom to top with a tremic detailed diagram of the well showing proposed final plugged configuration shall be attached, as well as any additional al information, such as geophysical logs, that are necessary to adequately describe the proposal.  Describe the method by which cement grout shall be placed in the well, or describe requested plugging methodology proposed for the well:  Lean cement grout will be placed in the boring from the bottom up using a tremie pipe.
2)	Will well head be cut-off below land surface after plugging? Yes - if the casing cannot be pulled
	UGGING AND SEALING MATERIALS:
Note: 7	The plugging of a well that taps poor quality water may require the use of a specialty cement or specialty sealant
1)	For plugging intervals that employ cement grout, complete and attach Table A.
2)	For plugging intervals that will employ approved non-cement based sealant(s), complete and attach Table B.
3)	Theoretical volume of grout required to plug the well to land surface: 1.6-2 gallons (per well)
4)	Type of Cement proposed: Portland cement
5)	Proposed cement grout mix: 5 gallons of water per 94 pound sack of Portland cement.
6)	Will the grout be:batch-mixed and delivered to the site mixed on site

7)	Grout additives requested, and percent by dry weight relative to cement:							
,	25 lbs High Yield Bentonite to 470 lbs Portland c	ement						
8)	Additional notes and calculations:							
	DESTRUCTION ATION LINE AND ADDRESS OF THE PROPERTY OF THE PROP	linformation below, or on congrate shoot(s):						
	ADDITIONAL INFORMATION: List additional							
As sta	ted in Section IV.2, the well was installed for monito	oring purposes, but has not been used for mon	itoring since the					
mid-19	980's. Updated monitoring wells were installed in the ed to NMED and OCD on an annual basis.	e mid-1980's and data on the shallow groundw	ater quality is					
report	ed to Mile Balla COB on all allidar basis.							
VIII.	SIGNATURE:							
		ay that I have carefully read the foregoing Wel	1 Plugging Plan of					
Operat	tions and any attachments, which are a part hereof;	that I am familiar with the rules and regulation	ns of the State					
Engine	eer pertaining to the plugging of wells and will con	nply with them, and that each and all of the sta	tements in the Well					
Pluggi	ing Plan of Operations and attachments are true to t	the best of my knowledge and belief.						
	- Hard	1	09					
	Man de la company de la compan	w, m	15818					
		Signature of Applicant	Date					
IX. A	CTION OF THE STATE ENGINEER:							
This V	Well Plugging Plan of Operations is:							
	Approved subject to the attached cond	litions						
	Not approved for the reasons provided	d on the attached letter.						
	Witness my hand and official seal this	day of						
		Tom Blaine P.E., New Mexico State Eng	ineer					
		By:						

TABLE A - For plugging intervals that employ cement grout. Start with deepest interval.

	Interval 1 – deepest	Interval 2	Interval 3 – most shallow
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of grout placement (ft bgl)			0
Bottom of proposed interval of grout placement (ft bgl)			TD of well (~21 ft)
Theoretical volume of grout required per interval (gallons)			1.6-2
Proposed cement grout mix gallons of water per 94-lb. sack of Portland cement			5
Mixed on-site or batch- mixed and delivered?			Mix on-site
Grout additive 1 requested			
Additive 1 percent by dry weight relative to cement		=	
Grout additive 2 requested			
Additive 2 percent by dry weight relative to cement			

TABLE B - For plugging intervals that will employ approved non-cement based sealant(s). Start with deepest interval.

	Interval 1 – deepest	Interval 2	Interval 3 – most shallow
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of sealant placement (ft bgl)			
Bottom of proposed sealant of grout placement (ft bgl)			
Theoretical volume of sealant required per interval (gallons)			
Proposed abandonment sealant (manufacturer and trade name)			





I. FII	ING FEE: There is no fi	ling fee for this for	rm.							
	ENERAL / WELL OWN  ng Office of the State En		ber (Well	Number)	for we	ll to be p	lugged:	RA 06143 X14		
Name	of well owner: HollyFro	ntier Navajo Refini	ing LLC	,		r				
	g address: PO Box 159									
			State	ą.·		NM		Zip code: 88211		
Phone	number: 575-746-5487			E-mail:	scott.	.denton@ł	nollyfronti	er.com		
	VELL DRILLER INFOR									
Well I	Driller contracted to provide	le plugging service	s: Talon	LPE						
New N	Mexico Well Driller Licens	se No.: 1575				Expira	tion Date	7/31/2020		
IV. W	ELL INFORMATION:									
	A copy of the existing W	ell Record for the v	well to be	plugged sh	ould be	e attached	to this pl	an.		
1)	GPS Well Location:	Latitude: Longitude:	32	deg,	51	min, _	23.2	sec		
		Longitude:	-104	deg,				sec, WGS84 are decimal format.		
2)	Reason(s) for plugging	well:				CHECK I	Seconds	are deemaa format.		
<i>_</i> )	This plan is for "Test Well #14", one of sixteen wells that were installed between 1977 and 1982 and are no longer in								r in	
	use.									
3)		arameters were mo	onitored.	If the we	ll was	used to r	nonitor o	on VII of this form to contaminated or poor qui ior to plugging.		
45				_		-		yes, provide additional d	9	
4)					water?		11	yes, provide additional d	etaii,	
	including analytical res									
	TDS concentrations in mg/L, as reported in ar				bearing	g unit rang	e from ap	oproximately 3,000 to 17,	000	
5)	Static water level:	6 to 10feet 6	elow land	surface f	eet abo	ve land su	rface (	circle one)		
6)	Depth of the well:	Jnknown feet								

7)	Inside diameter of innermost casing:Unknowninches.
8)	Casing material: steel
9)	The well was constructed with:  an open-hole production interval, state the open interval:  a well screen or perforated pipe, state the screened interval(s):  Unknown
10)	What annular interval surrounding the artesian casing of this well is cement-grouted? N/A
11)	Was the well built with surface casing? If yes, is the annulus surrounding the surface casing grouted or otherwise sealed? Unknown If yes, please describe:
12)	Has all pumping equipment and associated piping been removed from the well? N/A If not, describe remaining equipment and intentions to remove prior to plugging in Section VII of this form.
V. DE	SCRIPTION OF PLANNED WELL PLUGGING:
pipe, a	If this plan proposes to plug an artesian well in a way other than with cement grout, placed bottom to top with a tremie detailed diagram of the well showing proposed final plugged configuration shall be attached, as well as any additional al information, such as geophysical logs, that are necessary to adequately describe the proposal.
1)	Describe the method by which cement grout shall be placed in the well, or describe requested plugging methodology
	proposed for the well:
	Lean cement grout will be placed in the boring from the bottom up using a tremie pipe.
2)	Will well head be cut-off below land surface after plugging? Yes - if the casing cannot be pulled
VI. PI	LUGGING AND SEALING MATERIALS:
Note:	The plugging of a well that taps poor quality water may require the use of a specialty cement or specialty sealant
1)	For plugging intervals that employ cement grout, complete and attach Table A.
2)	For plugging intervals that will employ approved non-cement based sealant(s), complete and attach Table B.
3)	Theoretical volume of grout required to plug the well to land surface: 1.6-2 gallons (per well)
4)	Type of Cement proposed: Portland cement
5)	Proposed cement grout mix: 5 gallons of water per 94 pound sack of Portland cement.
6)	Will the grout be:batch-mixed and delivered to the site mixed on site

7)	Grout additives requested, and percent by dry weight relative to cement:							
	25 lbs High Yield Bentonite to 470 lbs Portland	cement						
8)	Additional notes and calculations:							
0)	Additional notes and calculations.							
			· · · · · · · · · · · · · · · · · · ·					
VII. A	ADDITIONAL INFORMATION: List addition	al information below, or on separate sheet(s	<u>):</u>					
mid-19	ted in Section IV.2, the well was installed for mon 980's. Updated monitoring wells were installed in t ed to NMED and OCD on an annual basis.							
L								
VIII.	SIGNATURE:							
		say that I have carefully read the foregoing	Well Plugging Plan of					
Opera	tions and any attachments, which are a part hereo	f; that I am familiar with the rules and regul	ations of the State					
	eer pertaining to the plugging of wells and will co		statements in the Well					
Pluggi	ng Plan of Operations and attachments are true to	the best of my knowledge and belief.						
	March	mille	99/18					
		Signature of Applicant	Date					
IX. A	CTION OF THE STATE ENGINEER:							
This V	Vell Plugging Plan of Operations is:							
	Approved subject to the attached corNot approved for the reasons provide							
	Witness my hand and official seal this	day of	,					
		Tom Blaine P.E., New Mexico State	Engineer					
		Ву:						

TABLE A - For plugging intervals that employ cement grout. Start with deepest interval.

	Interval 1 – deepest	Interval 2	Interval 3 – most shallow
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of grout placement (ft bgl)			0
Bottom of proposed interval of grout placement (ft bgl)			TD of well (~23 ft)
Theoretical volume of grout required per interval (gallons)			1.6-2
Proposed cement grout mix gallons of water per 94-lb. sack of Portland cement			5
Mixed on-site or batch- mixed and delivered?			Mix on-site
Grout additive 1 requested			
Additive 1 percent by dry weight relative to cement			
Grout additive 2 requested			
Additive 2 percent by dry weight relative to cement			

TABLE B - For plugging intervals that will employ approved non-cement based sealant(s). Start with deepest interval.

	Interval 1 – deepest	Interval 2	Interval 3 – most shallow
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of sealant placement (ft bgl)			
Bottom of proposed sealant of grout placement (ft bgl)			
Theoretical volume of sealant required per interval (gallons)			
Proposed abandonment sealant (manufacturer and trade name)			





L EU	ING FEE: There is no fi	ling fee for this form	١.						
II. G	ENERAL / WELL OWN	ERSHIP:							
Existi	ng Office of the State En	gineer POD Numbe	r (Well 1	Number) 1	for well	to be plu	igged: R	A 06775 E	
	of well owner: HollyFro	ntier Navajo Refining	g LLC				_		
Maili	ng address: PO Box 159								
City:	Artesia		State:			NM		Zip code:	88211
Phone	Artesia 575-746-5487			_ E-mail:	scott.d	enton@ho	ollyfrontie	r.com	
	VELL DRILLER INFOR								
	Driller contracted to provid		Talon L	PE					
	Mexico Well Driller Licen	se No.: 1575				_ Expirati	on Date:	7/31/2020	
<u>IV. V</u>	VELL INFORMATION:								
Note:	A copy of the existing W	ell Record for the we	ell to be pl	lugged she	ould be	attached to	o this plan	n.	
			00		E4		10.7		
1)	GPS Well Location:	Latitude: Longitude:	-104	_deg, deg,	20	_ min, min,	8.1	sec, WGS84	
		<i>U</i>		_		Check if s	seconds are	e decimal forma	ıt.
2)	Reason(s) for plugging	well:							
	This plan is for "Test W use.	ell #16", one of sixte	en wells ti	hat were i	nstalled	between <sup>-</sup>	1977 and	1982 and are	no longer in
3)	Was well used for any what hydrogeologic pawater, authorization from	arameters were mon	itored. I	If the wel	l was u	sed to me	onitor co	ntaminated or	r poor quality
4)	Does the well tap brace	kish, saline, or other	rwise poo	r quality v	water? _	Unknow	n If ye	s, provide ad	ditional detail,
	including analytical res	including analytical results and/or laboratory report(s):							
	TDS concentrations in mg/L, as reported in ar				oearing (	unit range	from app	roximately 3,0	000 to 17,000
5)	Static water level:	6 to 10 feet bel	ow land s	urface fe	eet abov	e land sur	face (cir	rcle one)	
6)	Depth of the well: 60(	log)/37.7 TD feet							

7)	Inside diameter of innermost casing:8inches.
8)	Casing material: steel
9)	The well was constructed with:  an open-hole production interval, state the open interval:  a well screen or perforated pipe, state the screened interval(s):  Unknown
10)	What annular interval surrounding the artesian casing of this well is cement-grouted? N/A
11)	Was the well built with surface casing?YesIf yes, is the annulus surrounding the surface casing grouted or otherwise sealed?UnknownIf yes, please describe:
12)	Has all pumping equipment and associated piping been removed from the well?N/AIf not, describe remaining equipment and intentions to remove prior to plugging in Section VII of this form.
<u>V. D</u>	ESCRIPTION OF PLANNED WELL PLUGGING:
pipe,	If this plan proposes to plug an artesian well in a way other than with cement grout, placed bottom to top with a tremie a detailed diagram of the well showing proposed final plugged configuration shall be attached, as well as any additional ical information, such as geophysical logs, that are necessary to adequately describe the proposal.  Describe the method by which cement grout shall be placed in the well, or describe requested plugging methodology proposed for the well:  Lean cement grout will be placed in the boring from the bottom up using a tremie pipe.
2)	Will well head be cut-off below land surface after plugging? Yes - if the casing cannot be pulled
<u>VI. P</u>	LUGGING AND SEALING MATERIALS:
Note:	The plugging of a well that taps poor quality water may require the use of a specialty cement or specialty sealant
1)	For plugging intervals that employ cement grout, complete and attach Table A.
2)	For plugging intervals that will employ approved non-cement based sealant(s), complete and attach Table B.
3)	Theoretical volume of grout required to plug the well to land surface: 1.6-2 gallons (per well)
4)	Type of Cement proposed: Portland cement
5)	Proposed cement grout mix: 5 gallons of water per 94 pound sack of Portland cement.
6)	Will the grout be:batch-mixed and delivered to the site mixed on site

7)	Grout additives requested, and percent by dry weight relative to cement:					
	25 lbs High Yield Bentonite to 470 lbs Portland	cement				
8)	Additional notes and calculations:		***			
VII.	ADDITIONAL INFORMATION: List addition	al information below, or on separate sheet(s	s):			
As sta	ated in Section IV.2, the well was installed for mon	itoring purposes, but has not been used for	monitoring since the			
	980's. Updated monitoring wells were installed in t ted to NMED and OCD on an annual basis.	the mid-1980's and data on the shallow grou	ndwater quality is			
X/III	SICNIA TUDE.					
	SIGNATURE: ott Denton	and that I have a seefully used the Course in a	W. II Dlancine Dlance			
·,	tions and any attachments, which are a part hereo	say that I have carefully read the foregoing f; that I am familiar with the rules and regul				
	eer pertaining to the plugging of wells and will co		e statements in the Well			
Plugg	ing Plan of Operations and attachments are true to	the best of my knowledge and belief.	5 4			
	the	thing	Sd   38 18			
		Signature of Applicant	Date			
			2 440			
IXA	CTION OF THE STATE ENGINEER:					
This V	Well Plugging Plan of Operations is:					
	Approved subject to the attached conNot approved for the reasons provide					
	Witness my hand and official seal this	day of	,			
		Tom Blaine P.E., New Mexico State	Engineer			
		$R_{V}$				

TABLE A - For plugging intervals that employ cement grout. Start with deepest interval.

	Interval 1 – deepest	Interval 2	Interval 3 – most shallow
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of grout placement (ft bgl)			0
Bottom of proposed interval of grout placement (ft bgl)			TD of well (~60 ft)
Theoretical volume of grout required per interval (gallons)			1.6-2
Proposed cement grout mix gallons of water per 94-lb. sack of Portland cement			5
Mixed on-site or batch- mixed and delivered?			Mix on-site
Grout additive 1 requested			
Additive 1 percent by dry weight relative to cement			
Grout additive 2 requested			
Additive 2 percent by dry weight relative to cement			

TABLE B - For plugging intervals that will employ approved non-cement based sealant(s). Start with deepest interval.

	Interval 1 – deepest	Interval 2	Interval 3 – most shallow
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of sealant placement (ft bgl)			
Bottom of proposed sealant of grout placement (ft bgl)			
Theoretical volume of sealant required per interval (gallons)			
Proposed abandonment sealant (manufacturer and trade name)			





I. FILI	NG FEE: There is	no filing fee	for this forn	n.						
H. GE	NERAL/WELLO	WNERSHII	<u>P:</u>							
Existing Name o	of well owner: Holl	e Engineer F lyFrontier Na	POD Numbe vajo Refinin	er (Well g LLC	Number)	for we	ll to be p	lugged: _	RA 06776 E	
	address: PO Box									
City: _	Artesia			State	e:	_	NM		Zip code:	88211
Phone 1	number: 575-746-54									
III. W	ELL DRILLER IN	FORMATIO	ON:							
	riller contracted to pr			Talon	LPE					
New M	exico Well Driller L	icense No.:	1575				Expira	tion Date	7/31/2020	
							-			
IV. W	ELL INFORMATION	ON:								
	A copy of the existin		rd for the we	ell to be j	plugged sh	ould be	e attached	to this pl	an.	
1)	GPS Well Location	n: Latit Long	tude: gitude:	32 -104	deg, deg,	51 19	min, _ min, _	21.6 36.8	sec sec, WGS84	
						I	Check i	f seconds a	are decimal form	at.
2)	Reason(s) for plug	ging well:				<u> </u>				
	This plan is for "Te use.	st <b>Wel</b> l #17",	one of sixte	en wells	that were i	nstalle	d betweer	i 1977 an	d 1982 and are	no longer in
3)	Was well used for what hydrogeolog water, authorizatio	ic parameter	s were mor	nitored.	If the well	l was	used to 1	nonitor c	ontaminated o	r poor quality
4)	Does the well tap	brackish, sa	line, or othe	rwise po	or quality	water?	Unkno	wn If	yes, provide ad	ditional detail
	including analytical results and/or laboratory report(s):									
	TDS concentration mg/L, as reported	ns in nearby r in annual gro	monitoring woundwater m	ells in sa onitoring	ame water- g reports.	oearing	unit rang	e from ap	oproximately 3,0	000 to 17,000
5)	Static water level:	6 to 10	feet(bel	low land	surface fe	eet abo	ve land su	ırface (	circle one)	
6)	Denth of the well-	30	feet							

7)	Inside diameter of innermost casing:8inches.
8)	Casing material: steel
9)	The well was constructed with:  an open-hole production interval, state the open interval:  a well screen or perforated pipe, state the screened interval(s):  unknown
10)	What annular interval surrounding the artesian casing of this well is cement-grouted? N/A
11)	Was the well built with surface casing?YesIf yes, is the annulus surrounding the surface casing grouted or otherwise sealed?InknownIf yes, please describe:
12)	Has all pumping equipment and associated piping been removed from the well? N/A If not, describe remaining equipment and intentions to remove prior to plugging in Section VII of this form.
V. DES	SCRIPTION OF PLANNED WELL PLUGGING:
pipe, a	f this plan proposes to plug an artesian well in a way other than with cement grout, placed bottom to top with a tremie detailed diagram of the well showing proposed final plugged configuration shall be attached, as well as any additional al information, such as geophysical logs, that are necessary to adequately describe the proposal.
1)	Describe the method by which cement grout shall be placed in the well, or describe requested plugging methodology
	proposed for the well:
	Lean cement grout will be placed in the boring from the bottom up using a tremie pipe.
2)	Will well head be cut-off below land surface after plugging? Yes - if the casing cannot be pulled
VI, PL	UGGING AND SEALING MATERIALS:
Note: 7	The plugging of a well that taps poor quality water may require the use of a specialty cement or specialty sealant
1)	For plugging intervals that employ cement grout, complete and attach Table A.
2)	For plugging intervals that will employ approved non-cement based sealant(s), complete and attach Table B.
3)	Theoretical volume of grout required to plug the well to land surface: 1.6-2 gallons (per well)
4)	Type of Cement proposed: Portland cement
5)	Proposed cement grout mix: 5 gallons of water per 94 pound sack of Portland cement.
6)	Will the grout be:batch-mixed and delivered to the siteX mixed on site

7)	Grout additives requested, and percent by dry v	veight relative to cement:	
,	25 lbs High Yield Bentonite to 470 lbs Portland		
3)	Additional notes and calculations:		
<u>VII. /</u>	ADDITIONAL INFORMATION: List additional	al information below, or on separate sheet(	s):
mid-1	ted in Section IV.2, the well was installed for moni 980's. Updated monitoring wells were installed in t ed to NMED and OCD on an annual basis.		
	GLGNA TRANS		
	SIGNATURE: tt Denton	say that I have carefully read the foregoing	Well Plugging Plan of
	tions and any attachments, which are a part hereofeer pertaining to the plugging of wells and will co	f; that I am familiar with the rules and regu	lations of the State
Plugg	ing Plan of Operations and attachments are true to	the best of my knowledge and belief.	
	hask	Media	00 38 18
		Signature of Applicant	Date
IX. A	CTION OF THE STATE ENGINEER:		
This \	Vell Plugging Plan of Operations is:		
	Approved subject to the attached con Not approved for the reasons provide		
	Witness my hand and official seal this	day of	<i></i>
		Tom Blaine P.E., New Mexico State	Engineer
		By:	

 $\label{thm:continuous} \textbf{TABLE}\ \textbf{A}\ \textbf{-}\ \textbf{For}\ \textbf{plugging}\ \textbf{interval}\ \textbf{start}\ \textbf{with}\ \textbf{deepest}$  interval.

	Interval 1 – deepest	Interval 2	Interval 3 – most shallow
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of grout placement (ft bgl)			0
Bottom of proposed interval of grout placement (ft bgl)			TD of well (~30 ft)
Theoretical volume of grout required per interval (gallons)			1.6-2
Proposed cement grout mix gallons of water per 94-lb. sack of Portland cement			5
Mixed on-site or batch- mixed and delivered?			Mix on-site
Grout additive 1 requested			
Additive 1 percent by dry weight relative to cement			
Grout additive 2 requested			
Additive 2 percent by dry weight relative to cement			

TABLE B - For plugging intervals that will employ approved non-cement based sealant(s). Start with deepest interval.

	Interval 1 – deepest	Interval 2	Interval 3 – most shallow
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of sealant placement (ft bgl)			
Bottom of proposed sealant of grout placement (ft bgl)			
Theoretical volume of sealant required per interval (gallons)			
Proposed abandonment sealant (manufacturer and trade name)			

# ATTACHMENT B COPIES OF OSE RECORDS



# New Mexico Office of the State Engineer

## **Point of Diversion Summary**

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag **POD Number** RA 06143 X2 Q64 Q16 Q4 Sec Tws Rng 1 1 12 17S 26E

X 561505 3635542\*

**Driller License:** 

**Driller Company:** 

H & W ENTERPRISES

**Driller Name:** 

Log File Date:

Pump Type:

**Casing Size:** 

**Drill Start Date:** 

06/16/1977 **Drill Finish Date:** 09/19/1977

06/16/1977

Plug Date:

**PCW Rcv Date:** Source:

Pipe Discharge Size: Estimated Yield: 9 GPM Depth Well: 20 feet Depth Water: 0 feet

**Casing Perforations:** Top Bottom 3

19

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

6/29/18 2:55 PM

POINT OF DIVERSION SUMMARY

<sup>\*</sup>UTM location was derived from PLSS - see Help



**EXPL** Permit To Explore

Transaction Number: 262445 Transaction Desc: RA 06143 X2 File Date: 06/15/1977

Primary Status: PMT Permit

Secondary Status: LOG Well Log Received

Person Assigned: \*\*\*\*\*\*

**Applicant: NAVAJO REFINING COMPANY** 

## **Events**

Date	Type	Description	Comment	Processed By
06/15/1977	APP	Application Received		*****
06/15/1977	FTN	Finalize non-published Trans.		*****
09/19/1977	LOG	Well Log Received		*****

## Water Right Information

WR File Nbr Acres Diversion Consumptive Purpose of Use

RA 06143 X2 0 OBS OBSERVATION

\*\*Point of Diversion

RA 06143 X2 561505 3635542\*

\*An (\*) after northing value indicates UTM location was derived from PLSS - see Help

## Remarks

THIS WEL IS FOR OBSERVATION OF GROUND WATER AND WILL NOT BE USED FOR IRRIGATION OR DOMESTIC PURPOSES. LOCATION IS 60 FT FROM WEST BOUNDARY, 180 FT FROM NORTH BOUNDARY OF SECTION 12. THIS WELL IS REFERRED TO AS WELL NO. 1

### **Conditions**

- 1A Depth of the well shall not exceed the thickness of the valley fill.
- B The well shall be drilled by a driller licensed in the State of New Mexico in accordance with Section 72-12-12 New Mexico Statutes Annotated.
- C1 A complete and properly executed Well Record on the form provided by the State Engineer shall be filed not later than ten (10) days after completion of the well. Test data shall be filed not later than ten (10) days after completion of the test(s).
  - The well shall be plugged upon completion of the permitted use, and a plugging report shall be filed with the State Engineer within 10 days.

## **Action of the State Engineer**

\*\* See Image For Any Additional Conditions of Approval \*\*

Approval Code: A - Approved Action Date: 06/15/1977
PCW Due Date: 06/30/1978



# **Point of Diversion Summary**

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag **POD Number** 

RA 06143 X3

Q64 Q16 Q4 Sec Tws Rng 1 1 12 17S 26E

 $\mathbf{X}$ 

561505 3635542\*

Plug Date:

Source:

**Driller License:** 

**Driller Company:** 

**Driller Name:** 

**Drill Start Date: Drill Finish Date:** Log File Date: **PCW Rcv Date:** 

**Pump Type:** Pipe Discharge Size: **Estimated Yield: Casing Size:** Depth Well: Depth Water:

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

6/29/18 2:56 PM

<sup>\*</sup>UTM location was derived from PLSS - see Help



**EXPL** Permit To Explore

Transaction Number: 262470 Transaction Desc: RA 06143 X3 File Date: 06/15/1977

Primary Status: PMT Permit Secondary Status: APR Approved

Person Assigned: \*\*\*\*\*\*

**Applicant: NAVAJO REFINING COMPANY** 

#### **Events**

06/15/1977 FTN Finalize non-published \*\*\*\*\*\*\*

Trans.

## Water Right Information

WR File Nbr Acres Diversion Consumptive Purpose of Use

RA 06143 X3 0 0 OBS OBSERVATION

\*\*Point of Diversion

RA 06143 X3 561505 3635542\*

\*An (\*) after northing value indicates UTM location was derived from PLSS - see Help

### Remarks

THIS WELL IS FOR OBSERVATION OF GROUND WATER AND WILL NOT BE USED FOR IRRIGATION OR DOMESTIC PURPOSES. LOCATION IS 60 FT FROM THE WEST BOUNDARY AND 190 FT FROM THE NORTH BOUNDARY OF SECTION 12. THIS WELL IS REFERRED TO AS WELL NUMBER 2.

## **Conditions**

- 1A Depth of the well shall not exceed the thickness of the valley fill.
- B The well shall be drilled by a driller licensed in the State of New Mexico in accordance with Section 72-12-12 New Mexico Statutes Annotated.
- C1 A complete and properly executed Well Record on the form provided by the State Engineer shall be filed not later than ten (10) days after completion of the well. Test data shall be filed not later than ten (10) days after completion of the test(s).
- The well shall be plugged upon completion of the permitted use, and a plugging report shall be filed with the State Engineer within 10 days.

# **Action of the State Engineer**

\*\* See Image For Any Additional Conditions of Approval \*\*

**Approval Code:** A - Approved **Action Date:** 06/15/1977 **PCW Due Date:** 06/15/1978



# **Point of Diversion Summary**

(quarters are 1=	NW 2=NE 3=SW	/ 4=SE)
(augretora ara ar	mallast to largest	١

(NAD83 UTM in meters) Well Tag **POD Number** Q64 Q16 Q4 Sec Tws Rng  $\mathbf{X}$ RA 06143 3 2 1 12 17S 26E 561909 3635345\*

**Driller License:** 675 **Driller Company:** H & W ENTERPRISES

**Driller Name:** 

**Drill Start Date:** 06/17/1977 **Drill Finish Date:** 06/17/1977 Plug Date: Log File Date: 01/16/1978 PCW Rcv Date: Source:

Pump Type: Pipe Discharge Size: **Estimated Yield: Casing Size:** 8.00 Depth Well: 20 feet Depth Water:

> **Casing Perforations:** Top Bottom 19

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

6/29/18 2:46 PM

<sup>\*</sup>UTM location was derived from PLSS - see Help



# **Transaction Summary**

EXPL Permit To Explore

Transaction Number: 262477 Transaction Desc: RA 06143 File Date: 06/14/1977

Primary Status: CAN Cancelled Permit Secondary Status: FIN Finalized

Person Assigned: \*\*\*\*\*\*

Applicant: NAVAJO REFINING CO.

Events

DateTypeDescriptionCommentProcessed By06/14/1977APPApplication Received\*\*\*\*\*\*\*06/15/1977FTNFinalize non-published Trans.\*\*\*\*\*\*\*\*

07/01/1978 FCN Finalize Cancel of permit \*\*\*\*\*\*

**Water Right Information** 

WR File Nbr Acres Diversion Consumptive Purpose of Use

RA 06143 0 OBS OBSERVATION

\*\*Point of Diversion

RA 06143 561909 3635345\*

\*An (\*) after northing value indicates UTM location was derived from PLSS - see Help

## Remarks

THIS WELL IS TO BE USED FOR OBSERVATION OF WATER LEVELS AND WATER QUALITY IN CONNECTION WITH THE WASTE WATER DISPOSAL PITS OF THE COMPANY.

# Conditions

- 1A Depth of the well shall not exceed the thickness of the valley fill.
- B The well shall be drilled by a driller licensed in the State of New Mexico in accordance with Section 72-12-12 New Mexico Statutes Annotated.
- C1 A complete and properly executed Well Record on the form provided by the State Engineer shall be filed not later than ten (10) days after completion of the well. Test data shall be filed not later than ten (10) days after completion of the test(s).
- 6 The well shall be plugged upon completion of the permitted use, and a plugging report shall be filed with the State Engineer within 10 days.

#### Action of the State Engineer

\*\* See Image For Any Additional Conditions of Approval \*\*

**Approval Code:** A - Approved **Action Date:** 06/15/1977 **PCW Due Date:** 06/30/1978

State Engineer:

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

6/29/18 2:52 PM TRANSACTION SUMMARY



# **Point of Diversion Summary**

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag **POD Number**  Q64 Q16 Q4 Sec Tws Rng

 $\mathbf{X}$ 

RA 06143 X4

2 1 12 17S 26E

561909 3635345\*

Plug Date:

Source:

**Driller License:** 

**Driller Company:** 

**Driller Name:** 

**Drill Start Date: Drill Finish Date:** Log File Date: **PCW Rcv Date:** 

**Pump Type:** Pipe Discharge Size: **Estimated Yield: Casing Size:** Depth Well: Depth Water:

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

6/29/18 2:56 PM

<sup>\*</sup>UTM location was derived from PLSS - see Help



**EXPL** Permit To Explore

Transaction Number: 262474 Transaction Desc: RA 06143 X4 File Date: 06/15/1977

Primary Status: PMT Permit Secondary Status: APR Approved

Person Assigned: \*\*\*\*\*\*\*

**Applicant: NAVAJO REFINING COMPANY** 

## **Events**

Date Type Description Comment Processed By

06/15/1977 APP Application Received \*\*\*\*\*\*\*

06/15/1977 FTN Finalize non-published \*\*\*\*\*\*\*

Trans.

## Water Right Information

WR File Nbr Acres Diversion Consumptive Purpose of Use

RA 06143 X4 0 0 OBS OBSERVATION

\*\*Point of Diversion

RA 06143 X4 561909 3635345\*

\*An (\*) after northing value indicates UTM location was derived from PLSS - see Help

### Remarks

THIS WELL IS FOR OBSERVATION OF GROUNDWATER ONLY AND WILL NOT BE USED FOR IRRIGATION OR DOMESTIC PURPOSES. THE AMOUNT OF WATER USED WILL BE ONLY A FEW GALONS PER MONTH.

LOCATION IS 1700 FEET FROM THE WEST BOUNDARY, 730 FEET FROM THE NORTH BOUNDARY OF SECTION 12. OBSERVATION WELL IS REFERRED TO AS TEST WELL # 4

### **Conditions**

- 1A Depth of the well shall not exceed the thickness of the valley fill.
- B The well shall be drilled by a driller licensed in the State of New Mexico in accordance with Section 72-12-12 New Mexico Statutes Annotated.
- A complete and properly executed Well Record on the form provided by the State Engineer shall be filed not later than ten (10) days after completion of the well. Test data shall be filed not later than ten (10) days after completion of the test(s).
- The well shall be plugged upon completion of the permitted use, and a plugging report shall be filed with the State Engineer within 10 days.

### **Action of the State Engineer**

\*\* See Image For Any Additional Conditions of Approval \*\*

Approval Code: A - Approved Action Date: 06/15/1977
PCW Due Date: 06/30/1977



# **Point of Diversion Summary**

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag **POD Number** 

Q64 Q16 Q4 Sec Tws Rng 3 4 01 17S 26E

X

**Driller License:** 675

562310 3635952\*

**Driller Company:** 

H & W ENTERPRISES

**Driller Name:** 

Pump Type:

**Casing Size:** 

**Drill Start Date:** 06/18/1977 Log File Date: 06/20/1977

RA 06143 X5

**Drill Finish Date:** 

06/18/1977

Plug Date:

**PCW Rcv Date:** 

Pipe Discharge Size: Depth Well: 21 feet Source:

Depth Water:

Estimated Yield: 0 GPM

**Casing Perforations:** Top Bottom

3

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

6/29/18 2:57 PM

POINT OF DIVERSION SUMMARY

0 feet

<sup>\*</sup>UTM location was derived from PLSS - see Help



**EXPL** Permit To Explore

Transaction Number: 262436 Transaction Desc: RA 06143 X5 File Date: 06/15/1977

Primary Status: PMT Permit

Secondary Status: LOG Well Log Received

Person Assigned: \*\*\*\*\*\*

**Applicant: NAVAJO REFINING COMPANY** 

#### **Events**

Date	Type	Description	Comment	Processed By
06/15/1977	APP	Application Received		*****
06/15/1977	FTN	Finalize non-published Trans.		*****
06/20/1977	LOG	Well Log Received		*****

## Water Right Information

WR File Nbr Acres Diversion Consumptive Purpose of Use

RA 06143 X5 0 OBS OBSERVATION

\*\*Point of Diversion

RA 06143 X5 562310 3635952\*

\*An (\*) after northing value indicates UTM location was derived from PLSS - see Help

## Remarks

THIS WELL IS FOR OBSERVATION OF GROUND WATER ONLY AND WILL NOT BE USED FOR IRRIGATION OR DOMESTIC PURPOSES. LOCATION IS 950 FT FROM THE SOUTH BOUNDARY, 2300 FT FROM THE EAST BOUNDARY OF SECTION 1. THIS WELL IS REFERRED TO AS OBSER. #5.

## **Conditions**

- 1A Depth of the well shall not exceed the thickness of the valley fill.
- B The well shall be drilled by a driller licensed in the State of New Mexico in accordance with Section 72-12-12 New Mexico Statutes Annotated.
- C1 A complete and properly executed Well Record on the form provided by the State Engineer shall be filed not later than ten (10) days after completion of the well. Test data shall be filed not later than ten (10) days after completion of the test(s).
- The well shall be plugged upon completion of the permitted use, and a plugging report shall be filed with the State Engineer within 10 days.

# **Action of the State Engineer**

\*\* See Image For Any Additional Conditions of Approval \*\*

Approval Code: A - Approved Action Date: 06/15/1977

PCW Due Date: 06/30/1978



# **Point of Diversion Summary**

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag **POD Number**  Q64 Q16 Q4 Sec Tws Rng

 $\mathbf{X}$ 

RA 06143 X6

3 4 01 17S 26E

562310 3635952\*

Plug Date:

Source:

**Driller License:** 

**Driller Company:** 

**Driller Name:** 

**Drill Start Date: Drill Finish Date:** Log File Date: **PCW Rcv Date:** 

**Pump Type:** Pipe Discharge Size: **Estimated Yield: Casing Size:** Depth Well: Depth Water:

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

6/29/18 2:57 PM

<sup>\*</sup>UTM location was derived from PLSS - see Help



**EXPL** Permit To Explore

Transaction Number: 262407 Transaction Desc: RA 06143 X6 File Date: 06/15/1977

Primary Status: PMT Permit
Secondary Status: APR Approved

Person Assigned: \*\*\*\*\*\*

**Applicant: NAVAJO REFINING COMPANY** 

## **Events**

Date Type Description Comment Processed By

06/15/1977 APP Application Received \*\*\*\*\*\*\*

06/15/1977 FTN Finalize non-published \*\*\*\*\*\*\*

Trans.

## Water Right Information

WR File Nbr Acres Diversion Consumptive Purpose of Use

RA 06143 X6 0 OBS OBSERVATION

\*\*Point of Diversion

RA 06143 X6 562310 3635952\*

\*An (\*) after northing value indicates UTM location was derived from PLSS - see Help

### Remarks

THIS WELL IS FOR OBSERVATION OF GROUND WATER ONLY AND WILL NOT BE USED FOR IRRIGATION OR DOMESTIC PURPOSES.LOCATION IS 940 FT FROM NORTH BOUNDARY, 2300 FT FROM THE WEST BOUNDARY OF SECTION. THIS WELL IS REFERRED TO AS OBSERVATION WELL NUMBER 6

## **Conditions**

- 1A Depth of the well shall not exceed the thickness of the valley fill.
- B The well shall be drilled by a driller licensed in the State of New Mexico in accordance with Section 72-12-12 New Mexico Statutes Annotated.
- C1 A complete and properly executed Well Record on the form provided by the State Engineer shall be filed not later than ten (10) days after completion of the well. Test data shall be filed not later than ten (10) days after completion of the test(s).
- The well shall be plugged upon completion of the permitted use, and a plugging report shall be filed with the State Engineer within 10 days.

# **Action of the State Engineer**

\*\* See Image For Any Additional Conditions of Approval \*\*

**Approval Code:** A - Approved **Action Date:** 06/15/1977 **PCW Due Date:** 06/30/1978



# **Point of Diversion Summary**

(quarters are 1=NW 2=NE 3=SW 4=SE)

 $(quarters\ are\ smallest\ to\ largest)$ 

(NAD83 UTM in meters)

Well Tag **POD Number**  Q64 Q16 Q4 Sec Tws Rng

X

RA 06143 X7

4 4 01 17S 26E

562914 3635954\*

**Driller License:** 

**Driller Company:** 

**Driller Name:** 

H AND W ENTERRISES

H & W ENTERPRISES

**Drill Start Date:** 

06/20/1977

**Drill Finish Date:** 06/20/1977 Plug Date:

Log File Date:

08/31/1977

**PCW Rcv Date:** 

Source:

Shallow

Pump Type:

Pipe Discharge Size:

Estimated Yield: 0 GPM

**Casing Size:** 

Depth Well:

22 feet

Depth Water:

**Casing Perforations:** 

Top Bottom

3

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

6/29/18 2:58 PM

<sup>\*</sup>UTM location was derived from PLSS - see Help



# **Transaction Summary**

**EXPL** Permit To Explore

**Transaction Number: 262405** Transaction Desc: RA 06143 X7 File Date: 06/15/1977

**Primary Status:** PMT Permit

Secondary Status: LOG Well Log Received

Person Assigned: \*\*\*\*\*\*

Applicant: NAVAJO REFINING COMPANY

#### **Events**

D	ate	Type	Description	Comment	Processed By
06	6/15/1977	APP	Application Received		*****
06	6/15/1977	FTN	Finalize non-published Trans.		*****
30	3/31/1977	LOG	Well Log Received		*****
08	3/31/1977	LOG	Well Log Received		*****

## **Water Right Information**

WR File Nbr Acres Diversion Consumptive Purpose of Use

RA 06143 X7 0 0 **OBS OBSERVATION** 

\*\*Point of Diversion

RA 06143 X7 562914 3635954\*

\*An (\*) after northing value indicates UTM location was derived from PLSS - see Help

## Remarks

THIS WELL IS FOR OBSERVATION OF GROUND WATER ONLY AND WILL NOT BE USED FOR IRRIGATION OR DOMESTIC PURPOSES. LOCATION IS 560 FT FROM SOUTH BOUNDARY, 350 FT FROM EAST BOUNDARY OF SECTION 1. THIS WELL IS REFERRED TO AS **OBSERVATION WELL #7** 

## **Conditions**

- 1A Depth of the well shall not exceed the thickness of the valley fill.
- В The well shall be drilled by a driller licensed in the State of New Mexico in accordance with Section 72-12-12 New Mexico Statutes Annotated.
- A complete and properly executed Well Record on the form provided by the C1 State Engineer shall be filed not later than ten (10) days after completion of the well. Test data shall be filed not later than ten (10) days after completion
  - The well shall be plugged upon completion of the permitted use, and a plugging report shall be filed with the State Engineer within 10 days.

# **Action of the State Engineer**

\*\* See Image For Any Additional Conditions of Approval \*\*

Approval Code: A - Approved **Action Date:** 06/15/1977 PCW Due Date: 06/30/1978





# **Point of Diversion Summary**

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag **POD Number** RA 06143 X83

Q64 Q16 Q4 Sec Tws Rng 4 4 01 17S 26E

 $\mathbf{X}$ 562914 3635954\*

**Driller License: Driller Company:** 

**Driller Name:** 

Log File Date:

**Drill Start Date:** 

**Drill Finish Date:** Plug Date: **PCW Rcv Date:** Source:

**Pump Type:** Pipe Discharge Size: **Estimated Yield: Casing Size:** Depth Well: Depth Water:

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

6/29/18 2:58 PM

<sup>\*</sup>UTM location was derived from PLSS - see Help



**EXPL** Permit To Explore

Transaction Number: 262400 Transaction Desc: RA 06143 X83 File Date: 06/15/1977

Primary Status: PMT Permit Secondary Status: APR Approved

Person Assigned: \*\*\*\*\*\*

**Applicant: NAVAJO REFINING COMPANY** 

#### **Events**

06/15/1977 FTN Finalize non-published \*\*\*\*\*\*\*

Trans.

## Water Right Information

WR File Nbr Acres Diversion Consumptive Purpose of Use

RA 06143 X83 0 0 OBS OBSERVATION

\*\*Point of Diversion

RA 06143 X83 562914 3635954\*

\*An (\*) after northing value indicates UTM location was derived from PLSS - see Help

### Remarks

THIS WELL IS FOR OBSERVATION OF GROUND WATER ONLY AND WILL NOT BE USED FOR IRRIGATION OR DOMESTIC PURPOSES. LOCATION IS 450 FT FROM THE SOUTH BOUNDARY, 350 FT FROM THE EAST BOUNDARY OF SECTION 1. THIS WELL IS REFERRED TO AS OBSERVATION WELL #8

## **Conditions**

- 1A Depth of the well shall not exceed the thickness of the valley fill.
- B The well shall be drilled by a driller licensed in the State of New Mexico in accordance with Section 72-12-12 New Mexico Statutes Annotated.
- C1 A complete and properly executed Well Record on the form provided by the State Engineer shall be filed not later than ten (10) days after completion of the well. Test data shall be filed not later than ten (10) days after completion of the test(s).
- The well shall be plugged upon completion of the permitted use, and a plugging report shall be filed with the State Engineer within 10 days.

# **Action of the State Engineer**

\*\* See Image For Any Additional Conditions of Approval \*\*

Approval Code: A - Approved Action Date: 06/15/1977

PCW Due Date: 06/30/1978



# **Point of Diversion Summary**

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag **POD Number** RA 06143 X9 Q64 Q16 Q4 Sec Tws Rng

X

2 2 01 17S 26E

562908 3636966\*

**Driller License:** 

675

**Driller Company:** H & W ENTERPRISES

**Driller Name:** 

**Drill Start Date:** 

06/21/1977

**Drill Finish Date:** 

06/21/1977

Plug Date:

Log File Date:

08/31/1977

**PCW Rcv Date:** 

Shallow Source:

Pump Type:

**Casing Size:** 

Pipe Discharge Size:

Depth Well:

**Estimated Yield:** 

21 feet

Depth Water:

**Casing Perforations:** 

Top Bottom

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

3

6/29/18 3:00 PM

<sup>\*</sup>UTM location was derived from PLSS - see Help



**EXPL** Permit To Explore

Transaction Number: 262385 Transaction Desc: RA 06143 X9 File Date: 06/15/1977

Primary Status: PMT Permit

Secondary Status: LOG Well Log Received

Person Assigned: \*\*\*\*\*\*

**Applicant: NAVAJO REFINING COMPANY** 

#### **Events**

Date	Type	Description	Comment	Processed By
06/15/1977	APP	Application Received		*****
06/15/1977	FTN	Finalize non-published Trans.		*****
08/31/1977	LOG	Well Log Received		*****

## Water Right Information

WR File Nbr Acres Diversion Consumptive Purpose of Use

RA 06143 X9 0 0 OBS OBSERVATION

\*\*Point of Diversion

RA 06143 X9 562908 3636966\*

\*An (\*) after northing value indicates UTM location was derived from PLSS - see Help

## Remarks

THIS WELL IS FOR OBSERVATION OF GROUND WATER AND WILL NOT BE USED FOR IRRIGATION OR DOMESTIC PURPOSES. LOCATION IS 500 FT FROM NORTH BOUNDARY, 340 FT FROM THE EAST BOUNDARY OF SECTION 12. THIS WELL IS REFERRED TO AS OBSERVATION WELL # 9

## Conditions

- 1A Depth of the well shall not exceed the thickness of the valley fill.
- B The well shall be drilled by a driller licensed in the State of New Mexico in accordance with Section 72-12-12 New Mexico Statutes Annotated.
- C1 A complete and properly executed Well Record on the form provided by the State Engineer shall be filed not later than ten (10) days after completion of the well. Test data shall be filed not later than ten (10) days after completion of the test(s).
  - The well shall be plugged upon completion of the permitted use, and a plugging report shall be filed with the State Engineer within 10 days.

# **Action of the State Engineer**

\*\* See Image For Any Additional Conditions of Approval \*\*

Approval Code: A - Approved Action Date: 06/15/1977

PCW Due Date: 06/30/1978



# **Point of Diversion Summary**

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag **POD Number** 

RA 06143 X10

Q64 Q16 Q4 Sec Tws Rng 2 2 12 17S 26E

 $\mathbf{X}$ 

562917 3635350\*

Plug Date:

Source:

**Driller License:** 

**Driller Company:** 

**Driller Name:** 

**Drill Start Date: Drill Finish Date:** Log File Date: **PCW Rcv Date:** 

**Pump Type:** Pipe Discharge Size: **Estimated Yield: Casing Size:** Depth Well: Depth Water:

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

6/29/18 3:01 PM

<sup>\*</sup>UTM location was derived from PLSS - see Help



**EXPL** Permit To Explore

Transaction Number: 262383 Transaction Desc: RA 06143 X10 File Date: 06/15/1977

Primary Status: PMT Permit Secondary Status: APR Approved

Person Assigned: \*\*\*\*\*\*

**Applicant: NAVAJO REFINING COMPANY** 

#### **Events**

06/15/1977 FTN Finalize non-published \*\*\*\*\*\*\*

Trans.

## Water Right Information

WR File Nbr Acres Diversion Consumptive Purpose of Use

RA 06143 X10 0 OBS OBSERVATION

\*\*Point of Diversion

RA 06143 X10 562917 3635350\*

\*An (\*) after northing value indicates UTM location was derived from PLSS - see Help

### Remarks

THIS WELL IS FOR OBSERVATION OF GROUND WATER AND WILL NOT BE USED FOR IRRIGATION OR DOMESTIC PURPOSES. LOCATION IS 500 FT FROM NORTH BOUNDARY, 240 FT FROM EAST BOUNDARY OF SECTION 12. THIS WELL IS REFERRED TO AS OBSERVATION WELL NUMBER 10

## **Conditions**

- 1A Depth of the well shall not exceed the thickness of the valley fill.
- B The well shall be drilled by a driller licensed in the State of New Mexico in accordance with Section 72-12-12 New Mexico Statutes Annotated.
- C1 A complete and properly executed Well Record on the form provided by the State Engineer shall be filed not later than ten (10) days after completion of the well. Test data shall be filed not later than ten (10) days after completion of the test(s).
- The well shall be plugged upon completion of the permitted use, and a plugging report shall be filed with the State Engineer within 10 days.

# **Action of the State Engineer**

\*\* See Image For Any Additional Conditions of Approval \*\*

Approval Code: A - Approved Action Date: 06/15/1977

PCW Due Date: 06/30/1977



# **Point of Diversion Summary**

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag **POD Number** 

RA 06143 X11

Q64 Q16 Q4 Sec Tws Rng

 $\mathbf{X}$ 

4 3 2 12 17S 26E

562516 3634943\*

Plug Date:

Source:

**Driller License:** 

**Driller Company:** 

**Driller Name:** 

**Drill Start Date: Drill Finish Date:** Log File Date: **PCW Rcv Date:** 

**Pump Type:** Pipe Discharge Size: **Estimated Yield: Casing Size:** Depth Well: Depth Water:

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

6/29/18 3:01 PM

<sup>\*</sup>UTM location was derived from PLSS - see Help



**EXPL** Permit To Explore

Transaction Number: 262360 Transaction Desc: RA 06143 X11 File Date: 06/15/1977

Primary Status: PMT Permit Secondary Status: APR Approved

Person Assigned: \*\*\*\*\*\*

**Applicant: NAVAJO REFINING COMPANY** 

## **Events**

06/15/1977 FTN Finalize non-published \*\*\*\*\*\*\*

Trans.

## **Water Right Information**

WR File Nbr Acres Diversion Consumptive Purpose of Use

RA 06143 X11 0 0 OBS OBSERVATION

\*\*Point of Diversion

RA 06143 X11 562516 3634943\*

\*An (\*) after northing value indicates UTM location was derived from PLSS - see Help

### Remarks

THIS WELL IS FOR OBSERVATION OF GROUND WATER AND WILL NOT BE USED FOR IRRIGATION OR DOMESTIC USE. LOCATION IS 1120 FT FROM THE NORTH BOUNDARY, 1600 FT FROM FROM THE EAST BOUNDARY OF SECTION 12. THIS WELL IS REFERRED TO AS OBSERVATION WELL #12

## **Conditions**

- 1A Depth of the well shall not exceed the thickness of the valley fill.
- B The well shall be drilled by a driller licensed in the State of New Mexico in accordance with Section 72-12-12 New Mexico Statutes Annotated.
- A complete and properly executed Well Record on the form provided by the State Engineer shall be filed not later than ten (10) days after completion of the well. Test data shall be filed not later than ten (10) days after completion of the test(s).
- The well shall be plugged upon completion of the permitted use, and a plugging report shall be filed with the State Engineer within 10 days.

# **Action of the State Engineer**

\*\* See Image For Any Additional Conditions of Approval \*\*

**Approval Code:** A - Approved **Action Date:** 06/15/1977 **PCW Due Date:** 06/30/1978



# **Point of Diversion Summary**

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag **POD Number**  Q64 Q16 Q4 Sec Tws Rng

X

RA 06143 X12

4 2 12 17S 26E

562920 3634946\*

**Driller License:** 675

**Driller Company:** 

H & W ENTERPRISES

**Driller Name:** 

**Drill Start Date:** 

06/22/1977 **Drill Finish Date:**  06/22/1977

Plug Date:

Log File Date:

08/31/1977 **PCW Rcv Date:** 

Source:

**Estimated Yield:** 

Pump Type: **Casing Size:** 

Pipe Discharge Size: Depth Well:

19 feet

Depth Water:

**Casing Perforations:** 

Top Bottom

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

6/29/18 3:02 PM

POINT OF DIVERSION SUMMARY

Shallow

<sup>\*</sup>UTM location was derived from PLSS - see Help



**EXPL** Permit To Explore

Transaction Number: 262352 Transaction Desc: RA 06143 X12 File Date: 06/15/1977

Primary Status: PMT Permit

Secondary Status: LOG Well Log Received

Person Assigned: \*\*\*\*\*\*

**Applicant: NAVAJO REFINING COMPANY** 

#### **Events**

Date	Type	Description	Comment	Processed By
06/15/1977	APP	Application Received		*****
06/15/1977	FTN	Finalize non-published Trans.		*****
08/31/1977	LOG	Well Log Received		*****

## Water Right Information

WR File Nbr Acres Diversion Consumptive Purpose of Use

RA 06143 X12 0 0

\*\*Point of Diversion

RA 06143 X12 562920 3634946\*

\*An (\*) after northing value indicates UTM location was derived from PLSS - see Help

## Remarks

THIS WELL IS FOR OBSERVATION OF GROUND WATER AND WILL NOT BE USED FOR IRRIGATION OR DOMESTIC PURPOSES. LOCATION 1120 FT FROM THE NORTH BOUNDARY 1500 FT FROM THE EAST BOUNDARY OF SECTION 12 THIS WELL IS REFERED TO AS OBSERVATION WELL # 12.

1. DIAMETER OF WELL NOT TO EXCEED 8 INCHES. 2. AT THE END OF THE TEST PERIOD THE WELL SHALL BE PLUGGED. 3. APPLICATION APPROVED FOR OBSERVATION AND WATER TESTING PURPOSES ONLY.

# Conditions

- 1A Depth of the well shall not exceed the thickness of the valley fill.
- B The well shall be drilled by a driller licensed in the State of New Mexico in accordance with Section 72-12-12 New Mexico Statutes Annotated.
- C1 A complete and properly executed Well Record on the form provided by the State Engineer shall be filed not later than ten (10) days after completion of the well. Test data shall be filed not later than ten (10) days after completion of the test(s).
- The well shall be plugged upon completion of the permitted use, and a plugging report shall be filed with the State Engineer within 10 days.

# **Action of the State Engineer**

\*\* See Image For Any Additional Conditions of Approval \*\*

Approval Code: A - Approved Action Date: 06/15/1977

PCW Due Date: 06/30/1978





# **Point of Diversion Summary**

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag **POD Number** 

RA 06143 X13

Q64 Q16 Q4 Sec Tws Rng 4 1 12 17S 26E

X

562112 3634940\*

**Driller License:** 675

**Driller Company:** 

**Driller Name:** 

06/23/1977

06/23/1977

H & W ENTERPRISES

Plug Date:

**Drill Start Date:** Log File Date:

08/31/1977

**Drill Finish Date: PCW Rcv Date:** 

Shallow Source:

Pump Type:

**Casing Size:** 

Pipe Discharge Size:

**Estimated Yield:** 

Depth Well: 21 feet Depth Water:

**Casing Perforations:** 

Top Bottom

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

3

6/29/18 3:04 PM

<sup>\*</sup>UTM location was derived from PLSS - see Help



**EXPL** Permit To Explore

Transaction Number: 262350 Transaction Desc: RA 06143 X13 File Date: 06/15/1977

Primary Status: PMT Permit

Secondary Status: LOG Well Log Received

Person Assigned: \*\*\*\*\*\*

**Applicant: NAVAJO REFINING COMPANY** 

#### **Events**

Date	Type	Description	Comment	Processed By
06/15/1977	APP	Application Received		*****
06/15/1977	FTN	Finalize non-published Trans.		*****
08/31/1977	LOG	Well Log Received		*****

## Water Right Information

WR File Nbr Acres Diversion Consumptive Purpose of Use

RA 06143 X13 0 OBS OBSERVATION

\*\*Point of Diversion

RA 06143 X13 562112 3634940\*

\*An (\*) after northing value indicates UTM location was derived from PLSS - see Help

## Remarks

THIS WELL IS FOR OBSERVATION OF GOUND WATER AND WILL NOT BE USED FOR IRRIGATION OR DOMESTIC PURPOSES.LOCATION IS 1280 FEET FROM NORTH BOUNDARY, 2430 FEET FROM WEST BOUNDARY OF SEC. 12. THIS WELL IS REFERRED TO AS OBSERVATION WELL #13

## **Conditions**

- 1A Depth of the well shall not exceed the thickness of the valley fill.
- 4 No water shall be appropriated and beneficially used under this permit.
- The well shall be drilled by a driller licensed in the State of New Mexico in accordance with Section 72-12-12 New Mexico Statutes Annotated.
- C Driller's well record must be filed with the State Engineer within 10 days after the well is drilled or driven. Well record forms will be provided by the State Engineer upon request.

## **Action of the State Engineer**

\*\* See Image For Any Additional Conditions of Approval \*\*

Approval Code: A - Approved Action Date: 06/15/1977

PCW Due Date: 06/30/1978



# **Point of Diversion Summary**

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag **POD Number** 

RA 06143 X14

Q64 Q16 Q4 Sec Tws Rng 4 1 12 17S 26E

 $\mathbf{X}$ 

562112 3634940\*

**Driller License:** 

**Driller Company:** 

**Driller Name:** 

**Drill Start Date: Drill Finish Date:** Plug Date: Log File Date: **PCW Rcv Date:** Source:

**Pump Type:** Pipe Discharge Size: **Estimated Yield: Casing Size:** Depth Well: Depth Water:

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

6/29/18 3:05 PM

<sup>\*</sup>UTM location was derived from PLSS - see Help



**EXPL** Permit To Explore

Transaction Number: 262322 Transaction Desc: RA 06143 X14 File Date: 06/15/1977

Primary Status: PMT Permit Secondary Status: APR Approved

Person Assigned: \*\*\*\*\*\*

**Applicant: NAVAJO REFINING COMPANY** 

## **Events**

Date Type Description Comment Processed By

06/15/1977 APP Application Received \*\*\*\*\*\*\*

06/15/1977 FTN Finalize non-published \*\*\*\*\*\*\*

Trans.

## **Water Right Information**

WR File Nbr Acres Diversion Consumptive Purpose of Use

RA 06143 X14 0 0 OBS OBSERVATION

\*\*Point of Diversion

RA 06143 X14 562112 3634940\*

\*An (\*) after northing value indicates UTM location was derived from PLSS - see Help

### Remarks

THIS WELL IS FOR OBSERVATION OF GROUND WATER AND WILL NOT BE USED FOR IRRIGATION OR DOMESTIC PURPOSES. LOCATION IS 1280 FEET FROM NORTH BOUNDARY AND 2530 FEET FROM EAST BOUNDARY OF SECTION 12.

1. DIAMETER OF WELL NOT TO EXCEED 8 INCHES. 2. APPLICATION APPROVED FOR OBSERVATION AND WATER TESTING PURPOSES ONLY. 3.

### **Conditions**

- 1A Depth of the well shall not exceed the thickness of the valley fill.
- C Driller's well record must be filed with the State Engineer within 10 days after the well is drilled or driven. Well record forms will be provided by the State Engineer upon request.
- 4 No water shall be appropriated and beneficially used under this permit.

# **Action of the State Engineer**

\*\* See Image For Any Additional Conditions of Approval \*\*

Approval Code: A - Approved Action Date: 06/15/1977

PCW Due Date: 06/30/1978



# **Point of Diversion Summary**

(quarters are	1=N	W 2=N	E 3=SV	V 4=SE)		
(quarters ar	e sma	illest to	largest	)	(NAD83 U	TM in meters)
Q64 Q16	Q4	Sec	Tws	Rng	X	$\mathbf{Y}$
2	1	12	17S	26E	562010	3635446*

Driller License: 406 Driller Company: TIDWELL, CLYDE J.

**Driller Name:** 

**POD Number** RA 06775 E

Well Tag

**Drill Start Date:** 03/21/1981 **Drill Finish Date:** 03/29/1981 **Plug Date:** 

**Log File Date:** 04/06/1981 **PCW Rcv Date:** Source: Shallow

Pump Type: Pipe Discharge Size: Estimated Yield:

Casing Size: 8.63 Depth Well: 60 feet Depth Water: 10 feet

 Water Bearing Stratifications:
 Top
 Bottom
 Description

 10
 25
 Sandstone/Gravel/Conglomerate

 28
 35
 Sandstone/Gravel/Conglomerate

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

6/29/18 2:44 PM POINT OF DIVERSION SUMMARY

<sup>\*</sup>UTM location was derived from PLSS - see Help



# **Transaction Summary**

EXPL Permit To Explore

**Transaction Desc:** RA 06775 E File Date: 03/17/1981 **Transaction Number: 251076** 

**Primary Status: PMT** Permit

Secondary Status: LOG Well Log Received

Person Assigned:

Applicant: NAVAJO REFINING CO

**Events** 

Date Type Description Comment Processed By \*\*\*\*\* 03/17/1981 APP Application Received 03/19/1981 \*\*\*\*\* FTN Finalize non-published Trans. \*\*\*\*\*

04/06/1981 Well Log Received LOG

Water Right Information

WR File Nbr Acres Diversion Consumptive Purpose of Use

RA 06775 E EXP EXPLORATION

\*\*Point of Diversion

RA 06775 E 562010 3635446\*

\*An (\*) after northing value indicates UTM location was derived from PLSS - see Help

## Remarks

Observation well to determine thickness of aquifer at this point and quality of water therein. DIAMETER OF WELL NOT TO EXCEED 8 INCHES APPLICATION APPROVED FOR OBSERVATION AND WAQTER TESTING PURPOSES ONLY. WELL DRILLER SHALL SUBMIT

LOGS OF ALL HOLES DRILLED. AT THE END OF THE TEST PERIOD THE WELL SHALL BE PLUGGED.

# **Conditions**

- Depth of the well shall not exceed the thickness of the valley fill.
- 4 No water shall be appropriated and beneficially used under this permit.
- В The well shall be drilled by a driller licensed in the State of New Mexico in accordance with Section 72-12-12 New Mexico Statutes Annotated.

## Action of the State Engineer

\*\* See Image For Any Additional Conditions of Approval \*\*

Approval Code: A - Approved **Action Date:** 03/19/1981 **PCW Due Date:** 03/31/1982

State Engineer:

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

6/29/18 2:43 PM

TRANSACTION **SUMMARY** 



# **Point of Diversion Summary**

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag **POD Number**  Q64 Q16 Q4 Sec Tws Rng

X

RA 06776 E 2 12 17S 26E 562618 3635245\*

**Driller License:** 406 **Driller Company:** 

TIDWELL, CLYDE J.

**Driller Name:** 

**Drill Start Date:** 03/29/1981

8.62

**Drill Finish Date:** 03/29/1981

Plug Date:

Log File Date:

04/06/1981

**PCW Rcv Date:** 

Source:

Shallow

Pump Type:

Pipe Discharge Size:

**Estimated Yield:** 

**Casing Size:** 

Depth Well:

30 feet

Depth Water:

10 feet

Water Bearing Stratifications:

**Bottom Description** 

Top

10

28 Sandstone/Gravel/Conglomerate

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

6/29/18 3:06 PM

<sup>\*</sup>UTM location was derived from PLSS - see Help



# **Transaction Summary**

EXPL Permit To Explore

Transaction Number: 251092 Transaction Desc: RA 06776 E File Date: 03/17/1981

Primary Status: PMT Permit

Secondary Status: LOG Well Log Received

Person Assigned: \*\*\*\*\*\*

Applicant: NAVAJO REFINING CO.

## **Events**

Date	Type	Description	Comment	Processed By
03/17/1981	APP	Application Received		*****
03/19/1981	FTN	Finalize non-published Trans.		*****
04/06/1981	LOG	Well Log Received		*****
04/06/1981	LOG	Well Log Received		*****

## Water Right Information

WR File Nbr Acres Diversion Consumptive Purpose of Use

RA 06776 E 0 OBS OBSERVATION

\*\*Point of Diversion

RA 06776 E 562618 3635245\*

\*An (\*) after northing value indicates UTM location was derived from PLSS - see Help

## Remarks

OBSERVATION WELL TO DETERMINE THICKNESS OF AQUIFER AT THIS POINT AND QUALITY OF WATER THEREIN. DIAMETER OF WELL NOT TO EXCEED 8 INCHES. APPLICATION APPROVED FOR OBSERVATION AND WATER TESTING PURPOSES ONLY.

## Conditions

- 1A Depth of the well shall not exceed the thickness of the valley fill.
- 6 The well shall be plugged upon completion of the permitted use, and a plugging report shall be filed with the State Engineer within 10 days.
- B The well shall be drilled by a driller licensed in the State of New Mexico in accordance with Section 72-12-12 New Mexico Statutes Annotated.
- C Driller's well record must be filed with the State Engineer within 10 days after the well is drilled or driven. Well record forms will be provided by the State Engineer upon request.
- 4 No water shall be appropriated and beneficially used under this permit.

## Action of the State Engineer

\*\* See Image For Any Additional Conditions of Approval \*\*

Approval Code: A - Approved Action Date: 03/19/1981

PCW Due Date: 03/31/1982

**State Engineer:** 

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

6/29/18 3:06 PM

TRANSACTION SUMMARY