

Well Name: HARDIE F	Well Location: T29N / R12W / SEC 14 / NWSE / 36.723953 / -108.064499	County or Parish/State: SAN JUAN / NM
Well Number: 1E	Type of Well: CONVENTIONAL GAS WELL	Allottee or Tribe Name:
Lease Number: NMSF077710	Unit or CA Name:	Unit or CA Number:
US Well Number: 300452661500S1	Well Status: Producing Gas Well	Operator: MORNINGSTAR PARTNERS LP

Notice of Intent

Sundry ID: 2653313

Type of Submission: Notice of Intent	Type of Action: Plug and Abandonment
Date Sundry Submitted: 01/19/2022	Time Sundry Submitted: 03:02
Date proposed operation will begin: 04/20/2022	

Procedure Description: MorningStar requests approval to plug and abandon the Hardie F #1E. Attached are the Planned Procedure, WBD, Reclamation Plan, and Noxious Weed form.

Surface Disturbance

Is any additional surface disturbance proposed?: No

NOI Attachments

- Procedure Description
- Hardie_F_1E___Noxious_Weed_Form_20220119150111.pdf
 - Reclamation_Plan___Hardie_F_1E_20220119150057.pdf
 - Hardie_F_1E___WBD_Proposed_20220119145120.pdf
 - Hardie_F_1E___Proposed_Procedure_20220119145110.pdf

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Conditions of Approval

Additional Reviews

General_Requirement_PxA_20220202090725.pdf
2653313_NOIA_F_1E_3004526615_KR_02022022_20220202090711.pdf
29N12W14JKd_Hardie_F_1E_20220202084343.pdf

Operator Certification

I certify that the foregoing is true and correct. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction. Electronic submission of Sundry Notices through this system satisfies regulations requiring a submission of Form 3160-5 or a Sundry Notice.

Operator Electronic Signature: CONNIE BLAYLOCK	Signed on: JAN 19, 2022 03:01 PM
Name: MORNINGSTAR PARTNERS LP	
Title: Regulatory Technician	
Street Address: 400 W 7th St.	
City: Forth Worth	State: TX
Phone: (817) 334-7882	
Email address: CBLAYLOCK@MSPARTNERS.COM	

Field Representative

Representative Name: Amy Byars		
Street Address:		
City:	State:	Zip:
Phone:		
Email address: abyars@mspartners.com		

BLM Point of Contact

BLM POC Name: KENNETH G RENNICK	BLM POC Title: Petroleum Engineer
BLM POC Phone: 5055647742	BLM POC Email Address: krennick@blm.gov
Disposition: Approved	Disposition Date: 02/02/2022
Signature: Kenneth Rennick	

**GENERAL REQUIREMENTS FOR
PERMANENT ABANDONMENT OF WELLS ON FEDERAL AND INDIAN LEASES
FARMINGTON FIELD OFFICE**

1.0 The approved plugging plans may contain variances from the following minimum general requirements.

1.1 Modification of the approved plugging procedure is allowed only with the prior approval of the Authorized Officer, Farmington Field Office.

1.2 Requirements may be added to address specific well conditions.

2.0 Materials used must be accurately measured. (densometer/scales)

3.0 A tank or lined pit must be used for containment of any fluids from the wellbore during plugging operations and all pits are to be fenced with woven wire. These pits will be fenced on three sides and once the rig leaves location, the fourth side will be fenced.

3.1 Pits are not to be used for disposal of any hydrocarbons. If hydrocarbons are present in the pit, the fluids must be removed prior to filling in.

4.0 All cement plugs are to be placed through a work string. Cement may be bull-headed down the casing with prior approval. Cement caps on top of bridge plugs or cement retainers may be placed by dump bailer.

4.1 The cement shall be as specified in the approved plugging plan.

4.2 All cement plugs placed inside casing shall have sufficient volume to fill a minimum of 100' of the casing, or annular void(s) between casings, plus an excess volume sufficient to provide for 50 linear feet of fill above the plug.

4.3 Surface plugs may be no less than 50' in length.

4.4 All cement plugs placed to fill annular void(s) between casing and the formation shall be of sufficient volume to fill a minimum of 100' of the annular space plus 100% excess, calculated using the bit size, or 100' of annular capacity, determined from a caliper log, plus an excess volume sufficient to provide for 50 linear feet of fill above the plug.

4.5 All cement plugs placed to fill an open hole shall be of sufficient volume to fill a minimum of 100' of hole, as calculated from a caliper log, plus an excess volume sufficient to provide for 50 linear feet of fill above the plug. In the absence of a caliper log, an excess of 100% shall be required.

4.6 A cement bond log or other accepted cement evaluation tool is required to be run if one had not been previously ran or cement did not circulate to surface during the original casing cementing job or subsequent cementing jobs.

5.0 All cement plugs spotted across, or above, any exposed zone(s), when; the wellbore is not full of fluid or the fluid level will not remain static, and in the case of lost circulation or partial returns during cement placement, shall be tested by tagging with the work string.

- 5.1 The top of any cement plug verified by tagging must be at or above the depth specified in the approved plan, without regard to any excess.
- 5.2 Testing will not be required for any cement plug that is mechanically contained by use of a bridge plug and/or cement retainer, if casing integrity has been established.
- 5.3 Any cement plug which is the only isolating medium, for a fresh water interval or a zone containing a prospectively valuable deposit of minerals, shall be tested by tagging.
- 5.4 If perforations are required below the surface casing shoe, a 30 minute minimum wait time will be required to determine if gas and/or water flows are present. If flow is present, the well will be shut-in for a minimum of one hour and the pressure recorded. Short or long term venting may be necessary to evacuate trapped gas. **If only a water flow occurs with no associated gas, shut well in and record the pressures. Contact the Engineer as it may be necessary to change the cement weight and additives.**

6.0 Before setting any cement plugs the hole needs to be rolled. All wells are to be controlled by means of a fluid that is to be of a weight and consistency necessary to stabilize the wellbore. This fluid shall be left in place as filler between all plugs.

- 6.1 Drilling mud may be used as the wellbore fluid in open hole plugging operations.
- 6.2 The wellbore fluid used in cased holes shall be of sufficient weight to balance known pore pressures in all exposed formations.

7.0 A blowout preventer and related equipment (BOPE) shall be installed and tested prior to working in a wellbore with any exposed zone(s); (1) that are over pressured, (2) where the pressures are unknown, or (3) known to contain H₂S.

8.0 Within 30 days after plugging work is completed, file a Sundry Notice, Subsequent Report of Abandonment (Form 3160-5), five copies, with the Field Manager, Bureau of Land Management, 6251 College Blvd., Suite A, Farmington, NM 87402. The report should show the manner in which the plugging work was carried out, the extent, by depth(s), of cement plugs placed, and the size and location, by depth(s), of casing left in the well. Show date well was plugged.

9.0 All permanently abandoned wells are to be marked with a permanent monument as specified in 43 CFR 3162.6(d). Unless otherwise approved.

10.0 If this well is located in a Specially Designated Area (SDA), compliance with the appropriate seasonal closure requirements will be necessary.

All of the above are minimum requirements. Failure to comply with the above conditions of approval may result in an assessment for noncompliance and/or a Shut-in Order being issued pursuant to 43 CFR 3163.1. You are further advised that any instructions, orders or decisions issued by the Bureau of Land Management are subject to administrative review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4 and 43 CFR 4.700.

(October 2012 Revision)

BLM FLUID MINERALS P&A Geologic Report

Date Completed: 02/02/2022

Well No. Hardie F #1E (API# 30-045-26615)	Location	1780	FSL	&	1590	FEL
Lease No. NMSF-077710	Sec. 14	T29N			R12W	
Operator MorningStar Operating, LLC	County	San Juan		State	New Mexico	
Total Depth 6421'	PBTD 6362'	Formation Dakota				
Elevation (GL) 5661'		Elevation (KB) 5674'				

Geologic Formations	Est. Top	Est. Bottom	Log Top	Log Bottom	Remarks
San Jose Fm					Surface/freshwater sands
Nacimiento Fm			Surface	365	Possible freshwater sands
Ojo Alamo Ss			365	532	Aquifer (possible freshwater)
Kirtland Shale			532	1188	
Fruitland Fm			1188	1728	Coal/Gas/Possible water
Pictured Cliffs Ss			1728	1812	Gas
Lewis Shale			1812	2380	
Chacra			2380	3268	Gas
Cliff House Ss			3268	3438	Water/Possible gas
Menefee Fm			3438	4070	Coal/Ss/Water/Possible O&G
Point Lookout Ss			4070	4160	Probable water/Possible O&G
Mancos Shale			4160	5336	
Gallup			5336	6079	O&G/Water
Greenhorn			6079	6132	
Graneros Shale			6132	6178	
Dakota Ss			6178	PBTD	O&G/Water

Remarks:

P & A

- BLM picks for the Dakota, Mancos, and Chacra formation tops vary from Operator picks.

Reference Well:

1) **Formation Tops**
Same

- Add a plug to cover the Gallup formation top at 5336'.
- Add a plug to cover the Mancos formation top at 4160'.
- Add a plug to cover the Chacra formation top at 2380'.
- Add a plug to cover the Pictured Cliffs formation top at 1728'.
- The plugs proposed in the P&A procedure, with changes recommended above, will adequately protect any freshwater sands in this well bore.
- Dakota perms 6179' – 6286'.

Prepared by: Chris Wenman

**UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
FARMINGTON DISTRICT OFFICE
6251 COLLEGE BLVD.
FARMINGTON, NEW MEXICO 87402**

AFMSS 2 Sundry ID 2653313

Attachment to notice of Intention to Abandon

Well: Hardie F 1E

CONDITIONS OF APPROVAL

1. Plugging operations authorized are subject to the attached "General Requirements for Permanent Abandonment of Wells on Federal and Indian Lease."
2. Farmington Office is to be notified at least 24 hours before the plugging operations commence at (505) 564-7750.
3. The following modifications to your plugging program are to be made:
 - a) Add a plug to cover the Gallup formation top at 5336 feet.
 - b) Add a plug to cover the Mancos formation top at 4160 feet.
 - c) Add a plug to cover the Chacra formation top at 2380 feet.
 - d) Add a plug to cover the Pictured Cliffs formation top at 1728 feet.

You are also required to place cement excesses per 4.2 and 4.4 of the attached General Requirements.

Office Hours: 7:45 a.m. to 4:30 p.m.

K. Rennick 2/2/2022

PROPOSED P&A PROCEDURE

Hardie F 1E

1. MIRU.
2. POOH w/ tubing.
3. Run a casing scraper to 6,655'
4. Set CICR @ 6,140'
5. Spot 17 sx Class B Cement on top of plug. (est'd TOC @ 5,990'). WOC, test casing integrity.
6. RU and run CBL.
7. Circulate hole with mud laden fluid.
8. Spot 2nd cement plug from 5,436' to 5,286' with 17 sx Class B cement.
9. Spot 3rd cement plug from 4,260' to 4,110' with 17 sx Class B cement.
10. Spot 4th cement plug from 3,368' to 3,218' with 17 sx Class B cement.
11. Spot 5th cement plug from 2,480' to 2,330' with 17 sx Class B cement.
12. Spot 6th cement plug from 1,828' to 1,678' with 17 sx Class B cement.
13. Spot 7th cement plug from 1,288' to 1,138' with 17 sx Class B cement.
14. Spot 8th cement plug from 632' to 315' with 34 sx Class B cement.
15. Spot 9th cement plug from 264' to surface with 29 sx Class B cement. Ensure cement at surface on all strings of casing, top off as needed.
16. Cut off wellhead below surface casing flange. Install P&A marker.

MorningStar Operating, LLC

Hardie F 1E
San Juan County, NM

Proposed P&A

Prepared by: J. Marschall
Date: 11/10/2021

KB = 13'
GL = 5,661'
API# 30-045-26615

Spud Date: 02/02/1986
Date Completed: 03/07/1986

All depths include KB
TD – 6,421'; PBTD – 6,404'
12 1/4" Surface hole
Surface Csg: 5 jts 8 5/8" 24# K55
Setting Depth: 214'

Cement
140 sx Cement
Cmt circ to surface

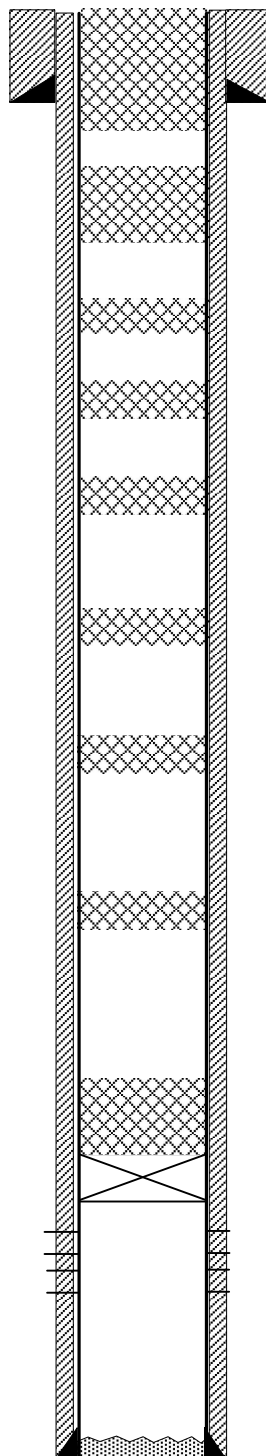
7 7/8" Production Hole
Production Csg: 158 jts 4-1/2" 10.5# J55
Setting Depth: 6,421'

Cement: 3 stage, tools @ 4,501' & 2,039':
Stage 1: 288 sx
Stage 2: 509 sx
Stage 3: 760 sx, cmt circ to surface

2 3/8" tubing set at 6,251' – 6/20/2012
193 jnts in hole

Dakota Perfs (1986):

6,179' - 6,286'
55,000# sand, 69,900 gal water



PLUG 9
29 sx cement 264' - surface

**PLUG 8 (combined Ojo Alamo
and Kirtland)**
34 sx cement 315' – 632'

PLUG 7 (Fruitland)
17 sx cement 1,138' – 1,288'

PLUG 6 (Pictured Cliffs)
17 sx cement 1,678' – 1,828'

PLUG 5 (Charca)
17 sx cement 2,330' – 2,480'

PLUG 4 (Mesa Verde)
17 sx cement 3,218' – 3,368'

PLUG 3 (Mancos)
17 sx cement 4,110' – 4,260'

PLUG 2 (Gallop)
17 sx cement 5,286' – 5,436'

PLUG 1
17 sx cement 5,990' – 6,140'

CICR set @ 6,140'

Nacimiento – surface'
Ojo Alamo – 365'
Kirtland – 532'
Fruitland – 1,188'
Picture Cliffs – 1,728'
Chacra – 2,380'
Mesa Verde – 3,268'
Mancos – 4,160'
Gallop – 5,336'
Dakota – 6,245'
CBL – Not yet

PBTD: 6,404'

P&A RECLAMATION PLAN

Hardie F #1E

API: 30-045-26615

General Notes:

- MorningStar Operating LLC will comply with the requirements in accordance with the approved Sundry Notice associated with this submittal.
- MorningStar Operating LLC will notify the BLM at least 48 hours prior to commencing reclamation earthwork.
- MorningStar Operating LLC will notify the BLM at least 48 hours prior to commencing with seeding application.
- Underground production piping on the well site will be removed or abandoned-in-place.
- If present, all MorningStar Operating LLC power poles, risers, rectifiers, solar panels, and radio equipment will be removed. Cathodic groundbeds will be plugged and abandoned.
- Rig anchors found on site will be removed.
- Disturbance will be limited to the well site footprint and access road boundaries.
- Surface equipment and trash, if any, will be removed.
- Gravel, if present, will be utilized as fill in the cut slope.
- The P&A marker will be permanent and comply with NMOCD regulations.

Well Site Reclamation:

- Mature healthy vegetation on the site perimeter will be left to the extent practical.
- Fill material on the location will be used to reclaim the site to near original and natural topography as is practical. A bulldozer/backhoe will be used to push/pull in the location edges to remove features to approximate the natural contours more closely.
- Natural drainage patterns will be established when possible and practical
- Silt traps will be utilized to mitigate erosion where applicable.
- The well pad and surrounding area are hilly and consists of sandy loam soil.
- All disturbed areas will be seeded in accordance with the FFO Bare Soil Reclamation Procedure C.
- The pad will be ripped, scarified, or disked to a depth adequate for establishing a suitable root zone.
- Prior to seeding, the disturbed areas will be left with a rough surface to facilitate moisture and seed retention.
- A fence will be placed across the entrance of the reclaimed location to prevent future access to the reclaimed well site.
- Enterprise meter facilities will be removed.

Access Road Reclamation:

- The location access road will be recontoured and seeded. Water bars or silt traps will be utilized to handle runoff where applicable.

Revegetation:

The planned initial seed mixture and application rates for the Badlands Community identified during the site visit will be as follows. The seed application rates may be adjusted according to various methods of application.

Species	Select		Lbs/acre (PLS)*
Fourwing Saltbush	X	Pick two out of four	4.0
Shadscale	X		2.0
Winterfat			2.0
Morman Tea			2.0
Indian Ricegrass	X	Pick four out of seven	5.0
Alkali sacaton	X		.25
Bottlebrush squirreltail			4.0
Sand Dropseed	X		.5
Blue Grama	X		2.0
Galleta			4.0
Siberian Wheatgrass			3.0
Small flower globemallow	X	Pick one out of two	.25
Narrow Leaf Penstemon			.25
TOTAL			14.0

* Minimum if drill seeded. Double this rate if broadcast or hydroseeded.

- Seeding will be broadcast so the rates will be doubled and a rake or harrow will be used to incorporate the seed into the soil.
- Seed mixtures will be certified weed-free and the seeding records (bag labels) or other official documentation will be available to the BLM prior to seeding, upon request.
- Seeding will occur as soon as reasonably possible following completion of earthwork activities and timed for successful germination.
- The need for soil amendments is not expected or proposed.

Weed Management:

- MorningStar Operating's objective is to implement an integrated weed management program to control weed populations and establish desirable vegetation.
- No noxious weeds were noted during the onsite visit.
- If needed, weed management and control will be performed in an environmental conscious manner by a properly licensed contractor and within compliance of federal and state laws and regulations.

Monitoring:

- MorningStar Operating LLC will submit a Sundry Notice informing the BLM the earthwork and seeding are completed.
- After establishment of adequate vegetation, MorningStar Operating LLC will coordinate with the BLM and take photos of the site. This information will be submitted with a Sundry Notice (FAN) requesting approval of the reclaimed location.
- Any fencing installed to assist with re-vegetation will be removed once there is an agreement from the BLM that adequate vegetation growth has been obtained.

Attachments:

- Noxious Weed Form

Onsite Noxious Weed Form

If noxious weeds are found during the onsite, fill out form and submit to FFO weed coordinator
Operator MorningStar Operating LLC Surveyor(s) Randy McKee

Well Name and Number Hardie F #1E Date 1/18/22

Location: Township, Range, Section T 29N R 12W Sec 14

Location of Project NAD 83 Decimal Degrees Lat: 36.723989 Long: -108.064489

Class A Noxious Weed - Check Box if Found

<input type="checkbox"/>	Alfombrilla	<input type="checkbox"/>	Diffuse knapweed	<input type="checkbox"/>	Hydrilla	<input type="checkbox"/>	Purple starthistle	<input type="checkbox"/>	Yellow toadflax.
<input type="checkbox"/>	Black henbane	<input type="checkbox"/>	Dyer's woad	<input type="checkbox"/>	Leafy spurge	<input type="checkbox"/>	Ravenna grass	<input type="checkbox"/>	
<input type="checkbox"/>	Camelthorn	<input type="checkbox"/>	Eurasian watermilfoil	<input type="checkbox"/>	Oxeye daisy	<input type="checkbox"/>	Scotch thistle	<input type="checkbox"/>	
<input type="checkbox"/>	Canada thistle	<input type="checkbox"/>	Giant salvinia	<input type="checkbox"/>	Parrotfeather	<input type="checkbox"/>	Spotted knapweed	<input type="checkbox"/>	
<input type="checkbox"/>	Dalmatian toadflax	<input type="checkbox"/>	Hoary cress	<input type="checkbox"/>	Purple loosestrife	<input type="checkbox"/>	Yellow starthistle	<input type="checkbox"/>	

Class B Noxious Weed-Check Box if Found

<input type="checkbox"/>	African rue	<input type="checkbox"/>	Perennial oenotherweed	<input type="checkbox"/>	Russian knapweed	<input type="checkbox"/>	Tree of heaven
<input type="checkbox"/>	Chicory	<input type="checkbox"/>	Musk thistle	<input type="checkbox"/>	Poison hemlock	<input type="checkbox"/>	
<input type="checkbox"/>	Halogeton	<input type="checkbox"/>	Malta starthistle	<input type="checkbox"/>	Teasel	<input type="checkbox"/>	

Comments:

No noxious weeds were observed.

FFO Representative: Randy McKee

sign and date

Operator Representative [Signature]

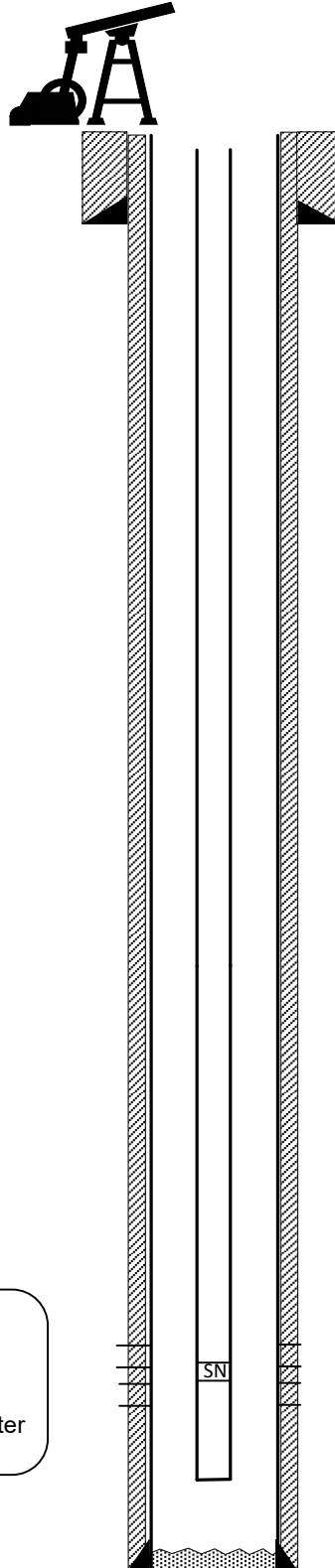
sign and date

1/18/22

MorningStar Operating, LLC

Hardie F 1E
San Juan County, NM

Current WBD



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Cement
140 sx Cement
Cmt circ to surface

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Mancos – 4,160'

Gallup – 5,336'

Dakota – 6,245'

CBL – Not yet

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 79133

CONDITIONS

Operator: MorningStar Operating LLC 400 W 7th St Fort Worth, TX 76102	OGRID: 330132
	Action Number: 79133
	Action Type: [C-103] NOI Plug & Abandon (C-103F)

CONDITIONS

Created By	Condition	Condition Date
kpickford	Notify NMOCD 24 Hours Prior to beginning operations	2/14/2022
kpickford	Adhere to BLM approved plugs and COAs. See GEO Report	2/14/2022