

EXHIBIT B

Packgoats and *Mycoplasma ovipneumoniae* Prevalence Study 2016 North American Packgoat Association Summary of Understanding

Mycoplasma ovipneumoniae, often referred to by the nickname “Movi” (or some variation of that) is the pathogen currently believed to be the most likely primary cause of outbreaks of bighorn sheep pneumonia that have threatened recovery of that species. On November 10, 2015 information was presented at The Technical Packgoat Meeting to NAPgA and the Blue Mountain Forest Plan Revision team in Pendleton, Oregon that goats had a 90% prevalence rate of *M. ovipneumoniae*. In clarifying this information Dr. Tom Besser noted in an email Dec 15, 2015 that this information was obtained from a “report of a large US survey of sheep operations tested for MOVI”. Domestic goats are different than domestic sheep and most certainly packgoats are very different from domestic sheep on public lands grazing allotments.

To consider packgoats the same as sheep for purposes of analyzing the risk of disease (pathogen) transmission to bighorn sheep is in error. Packgoat owners train packgoat prospects from a young age. Packgoats are inextricably bonded to their owner, which represents the “alpha goat” in their small herd. The lifestyle and care of a packgoat in herds of 2 to 10 differs greatly from that of a typical herd of domestic sheep or goats which can range in size of hundreds to thousands. Packgoats are seen by their owners as a significant investment in time and resources for 3 or 4 years before they are viable for packing purposes. Throughout a packgoat’s life, the packgoat receives routine veterinary care in order to keep the goat healthy and prolong their useful life.

Available literature at the time of this 2015 meeting quoted decades-old science in its discussion of evidence for “disease transmission” from domestic goats to BHS. There was no, and to date remains no, scientific support to implicate packgoats in BHS die-offs. Goats and sheep are different species and the scientific data from captive commingling experiments concerning pathogen (*M. ovipneumoniae* or other historically examined pathogens, such as members of the Pasteurellaceae family of bacteria) transmission to bighorn sheep and subsequent disease is vastly different. The types of *M. ovipneumoniae* carried by domestic sheep differ genetically from those carried by domestic goats (Maksimovic, Cassirer, unpublished data). Goat types or “strains” of *M. ovipneumoniae* have resulted in relatively mild (non-fatal) respiratory illness, dramatically different than the nearly 100% fatality reported from captive commingling with domestic sheep. To group sheep and goats together, and even packgoats and other types of domestic goats, in the discussion of pathogen or disease transmission falsely implicates packgoats in BHS die-off’s.

In more recent research by Besser *et al.* (2016), not a single domestic goat or bighorn sheep succumbed to any sort of pneumonia before or after being infected with a “goat type” of *M. ovipneumoniae* and not a single animal died as a result of disease during the study. Domestic goats were not shown to cause deaths of bighorn sheep as a result of pathogen (“disease”) transmission, even when the 3 study goats, were inoculated/infected with a “goat type” of *M. ovipneumoniae* and forced to commingle with bighorn sheep for 100 days. All animals in the study, both the domestic goats and bighorn sheep began showing symptoms of respiratory illness, and all of them recovered prior to being euthanized by the researchers. While the publication would imply that “sub-lethal pneumonia” was

induced in the bighorn sheep in this study, this is not consistent with the histopathology reports from lung tissue that was submitted to the Washington Animal Disease Diagnostic Laboratory in Pullman, WA. Those reports indicated that there were minimal to mild changes that are typically seen in small ruminants that are infected with *M. ovipneumoniae* (bronchiolar associated lymphoid tissue (BALT) hyperplasia and hyperplasia of the bronchial/bronchiolar epithelium); but no diagnosis of pneumonia was reported.

NAPgA is the leading organization in making recommendations on how to safely recreate with packgoats around BHS habitat. The complete lack of relevant research regarding *M. ovipneumoniae* prevalence in packgoats lead NAPgA to contact the USDA - Agricultural Research Unit - Animal Disease Research Unit (ARDU) in December of 2015. ARDU and APHIS (Animal and Plant Health Inspection Service) developed a packgoat *M. ovipneumoniae* surveillance research project.

In the spring of 2016 NAPgA recruited packgoat owners to participate in this research project. Consent was obtained from each packgoat owner. The majority of samples were collected by APHIS personnel and the remainder by Margaret Highland, DVM, PhD, Dipl. ACVP. Duplicate swabs were collected by both APHIS personnel and Dr. Highland. One swab was tested in the ARDU-ARS-USDA laboratory and the other was tested in the Washington Animal Disease Laboratory (except for kids <6 months of age and some of the non-packers that were also tested, which were tested only in the USDA-ARS-ARDU laboratory, as a means to save on research funds, since these animals are not used for packing).

A **packgoat owner survey** was completed. Information obtained was as follows:

- Goat information: Age, Sex, Breed
- Number of goats on premises (packers, non-packers)
- Illness(es) within the last year, including pinkeye/respiratory disease
- Any recent (last month) use of antibiotics
- Vaccination and antiparasitic regimen
- Use of packgoats on public lands? Proximity to bighorn sheep?

Samples collected (spring-fall 2016)

Packgoats

- 3 sets of duplicate nasal swabs collected at 4 week minimum intervals (few premises had only 1 or 2 sample collections)
- 1 blood sample for serum
- Other goats (milkers/breeders/etc) on premises were also tested
- At a minimum, 1 or 2 nasal swabs collected, at 1 to 3 time points
- Not all premises had “non-packer” goats on premises sampled
- All samples processed within 72 hours of collection

Sample Testing

- Nasal Swab samples tested by PCR and/or qPCR; positive samples confirmed by DNA sequencing
- PCR = polymerase chain reaction = technique that amplifies a segment of the bacteria’s genome to determine if it is present
- Duplicate nasal swabs from the first sample collection submitted to the Washington Animal Disease Diagnostic Laboratory (qPCR analysis)
- Serum samples are currently banked frozen

Distribution

State	#premises	#packgoats	# other goats	Total
AZ	3	16	23	39
CA	6	16	42	58
CO	8	29	12	41
ID	25	101	35	136
KS	1	13	51	64
MT	5	21	6	27
NM	1	2	0	2
NV	2	8	0	8
OR	9	32	3	35
UT	5	34	2	36
WA	14	65	17	82
WY	4	40	3	43
Total	83	377	194	571

“Other goats” = milkers, bucks, kids under 4 months of age which would not be out packing or on long hikes

WADDL Test Results

# Goats Tested	Detected	Indeterminate *	Not Detected
485 (83premises)	18 (5 premises)	20 (9 premises, 3 overlapped with the detected premises)	474 (72 premises)
	3.7% (6.0%premises)	4.1% (10.8%premises)	92.2% (86.7%premises)

* Indeterminate indicates that either there was an extremely low number of *M. ovipneumoniae* present in the sample OR the sample is truly negative, and the low detection is a false positive

WADDL Laboratory Test Results

NAPgA believes the large number of samples tested by the AAVLD accredited state diagnostic laboratory (WADDL) provide sufficient and valid evidence as to the very low prevalence of *M. ovipneumoniae* in packgoats.

ADRU-ARS-USDA Laboratory Results

8.2%, or 47, of all goats tested (n=571) had at least 1 sample in which *M. ovipneumoniae* was detected. Twenty-six of the positive animals were ≤4 months old, 35 were ≤12 months, and when considering only the “packers”, 3.3% overall had *M. ovipneumoniae* detected on at least 1 sample collection. 10 of the 14 premises with at least 1 positive detection were premises reported to house kids or were a premises in which the packgoat(s) were in recent contact with a positive packgoat or kids from a positive premises. These results have not yet been published in a peer-reviewed venue. Overall NAPgA will provide the complete report after peer-reviewed publication.

This is a living document and will be updated as new scientific evidence-based information is available.

From: Highland, Margaret
Sent: Friday, May 05, 2017 9:59 AM
To: 'Steve Kilpatrick' <skilpatrick@wyomingwildsheep.org>; 'Ron Smith' <rsagebrushsmith@aol.com>; canyonshadows@wyoming.com; johnmionne@gmail.com; packgoat@icloud.com; ctrulock@fs.fed.us; sschacht@fs.fed.us; brandonjhouck@fs.fed.us; rvandervoet@blm.gov; Lander_WYMail@blm.gov; daryl.lutz@wyo.gov; pat_hnilicka@fws.gov; sara@bighorn.org
Cc: 'Knowles, Don' (dknowles@vetmed.wsu.edu)' <dknowles@vetmed.wsu.edu>
Subject: RE: Pack Goat Meeting rescheduled

Since this may not occur before a final decision is made on the Shoshone NF, I would like to share with this group the data from the large scale pack goat study that was performed in 2016. While the ocular swabs are now and finally being tested after developing and validating PCR assays for detecting the 4 most common bacterial agents of pink eye (this process was much slower than anticipated by me), the *Mycoplasma ovipneumoniae* results are completed. The following, in quotes, is an email that I shared with Jim Wilder on 12/16/17. Since then we have retested all of the pack goat nasal swabs a 3 time with a more sensitive standard PCR method, the update on the findings from this follow the email correspondence.

“Over the last year we (ADRU-ARS-USDA), in collaboration with APHIS, were able to complete a fairly large scale surveillance study testing nasal shedding/presence of *Mycoplasma ovipneumoniae* in pack goats. We also tested goats that were housed with or on the same premises as domestic goats that were reported by the owner to be used specifically for packing. We also collected ocular swabs from participating goats to test for the presence of the common agents of small ruminant pink eye (*Chlamydophila* sp and *Mycoplasma conjunctivae*, *Moraxella ovis*, and *Acheloplasma oculi*); the ocular swabs are still being analyzed, with hopes of completing analysis this month. Upon analysis completion of the ocular swabs, the plan is to report the results by publishing in a peer-reviewed scientific journal by the end of winter/early spring.

I would like to share with you the following results from the nasal swab samples that were collected:

Nasal swabs were collected 3 times, at 1 month minimum intervals, from participating goats (aside from the handful of animals that were sold, removed from the study as per the owners discretion, or entered into the study late so had fewer sample time points). A couple of the premises had 4 or 5 samples collected. Duplicate nasal swabs were collected at each time point. 1 swab was tested in our USDA laboratory and samples that tested negative were then submitted to an independent laboratory for confirmation of the results (WADDL in Pullman, WA was the independent laboratory).

We tested a total of 576 domestic goats from 84 premises which included the following states (# of premises in parentheses after each): AZ (3), CA (6), CO (7), ID (26), KS (1), MT (5), NM (1), NV (2), OR (9), UT (5), WA (14), WY (4), VT (1). (I believe I had reported that there were 88 premises in earlier info that I shared with Mark P.I forgot to deduct the 4 premises scattered in 4 eastern states that we didn't get tested).

Of all of the premises tested, we confirmed *M. ovipneumoniae* to be present in nasal

secretions from goats on 2 premises, limited to kids ≤ 2 weeks of age at only one test time. We collected additional swabs from 1 of these premises for 5 times total sample collections and the last 3 collection points had no detected *M. ovipneumoniae* and interestingly, all of the adult goats (9 of them) never had *M. ovipneumoniae* detected....the kids (there were 15 of them total) had 3 positives at time point 1, and 2 different kids positive at time point 2 (1st 3 positive were negative at this 2nd time point) and all goats on the premises were negative the last 3 sample collections.

As for the other premises that had a handful of positive kids: I repeat swabbed several of them 1 or 2 more times and they too were subsequently negative on the repeat samplings. This “kid phenomenon” is interesting.....I’ll leave it at that as to save typing time in this already lengthy email, but am happy to discuss further some time if you are interested. One additional premises that had *M. ovipneumoniae* detected 2 of the 3 sample times had a small group of yearling pack goats that were being housed at fence line with an ‘open’ breeding herd of registered Boer goats that were used for shows and sent out to farms for sire purposes. I instructed that owner to move his packers as soon as possible away from the large group of traveling Boer goats.....I suspect that his pack goats may clear (not shed) *M. ovipneumoniae* without the constant potential exposure, as all of his goats were negative on the 3 sample collection (I’d be happy to discuss why I suspect this may be possible with you too, if you’re interested).

The other 81 premises had no confirmed *M. ovipneumoniae* present on any of the nasal swabs collected. Of interest to your local and nearby area, none of the WY, UT, CO, MT herds had confirmed *M. ovipneumoniae* detection at any of the time points. 1 of the places with “kid detected *M. ovipneumoniae*” was in ID, but these kids are the ones that have sense been negative and the adults never positive.

While nothing is ever 100% risk free in life, I think this data strongly supports that there is a very low prevalence of *M. ovipneumoniae* in goats, at least those raised and kept in closed and typically small groups (however, a few of the premises that I tested had 20+ goats though and still negative....even the premises that tested their milk goats).

I would also like to take the time here to give warning that unless researchers and/or diagnosticians are looking beyond the common published techniques for identifying *M. ovipneumoniae*, there is a chance that false positive results will occur...particularly in goats. For example, we know that the published PCR primers, referred to as “LM primers” and qPCR techniques that have been developed in the past based on these primers can (and do) result in false positive results. By “looking beyond” I mean perform standard PCR to amplify a minimum of 2 regions of the bacterial genome and sequence the products/amplicons.....and making sure that the products/amplicons match well-characterized strains of *M. ovipneumoniae* (ie. strains that are characterized by reputable groups such as ATCC). Mycoplasmas are tricky, to say the least. Again, I’m happy to discuss more should you be interested.

Please feel free to let me know, either by email or phone (listed in signature line), if you have questions, comments, or concerns about the information provided herein or if you have anything that you would like to further discuss with me regarding the bighorn pneumonia phenomenon.”

Update following repeated testing using a more sensitive method of detection:
Five of the 83 premises tested (6%) had *M. ovipneumoniae* identified during the repeat nasal sample collections. Premises that had *M. ovipneumoniae* detected in any the goats

had at least 7 goats housed on the premises. *M. ovipneumoniae* was confirmed to be present on the nasal swabs collected from 30 of the 576 total goats tested, meaning that 94.8% of the goats tested had no *M. ovipneumoniae* detected at any of the sample collection time points. Of the 30 total *M. ovipneumoniae* positive goats, 27 (or 90%) of the were ≤ 1 year of age, and 23 of them were < 5 months of age.

During the 2016 North American Pack goat annual gathering (“the Rendy”) held in Oregon, I sampled in total 27 adults and 2 kid goats whose owners brought them to the sample collection site that I set up. Most of these goats were already part of the large pack goat/domestic goat surveillance study and I asked owners if they minded me taking an extra nasal swab from their animals with the thought that perhaps the stressor of travelling or bringing a large group of goats together may result in shedding of *M. ovipneumoniae* from animals that it hadn’t been detected on during the first round of sample collections and it also gave the opportunity to add a couple more premises to the study. *M. ovipneumoniae* **was not detected** on any of the swab samples collected at the Rendy.

It’s unfortunate how long research takes, particularly with something as time sensitive as this seems to be, as I had truly hoped that this entire study would be out in published in a peer-reviewed form at this point (April was my goal). Hoping now for June with fingers crossed that all of the ocular swab testing goes smoothly....and more importantly accurately with good specificity and sensitivity.

Thank you and I look forward to participating in the Pack Goat meeting whenever the final date is decided upon.

Maggie

Margaret A. Highland, DVM, PhD, Dipl. ACVP
Animal Disease Research Unit-ARS-USDA (VMO Researcher)
Washington Animal Disease Diagnostic Laboratory (Adjunct Pathologist)
School for Global Animal Health (Adjunct Faculty)
Washington State University
Pullman, WA 99164

Office phone: 509-335-6327
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Fax: 509-335-8328

**ACCESSION FORM FOR GENERAL DIAGNOSTICS
Washington Animal Disease Diagnostic Laboratory**

College of Veterinary Medicine, Washington State University
Web Site: <http://waddl.vetmed.wsu.edu>

US Postal Service mailing address:
PO Box 647034
Pullman, WA. 99164-7034

UPS, FedEx or Courier shipping address:
Bustad Hall, Rm.155-N
Pullman, WA. 99164-7034

Phone: (509) 335-9696
FAX: (509) 335 7424
E-Mail: waddl@vetmed.wsu.edu

2016-6030
 Ref Vet: Highland, Margaret
 Owner: USDA - ARS - ADRU
 Breed: Domestic Goat
 Routed: jmd
 Form 2 pages
05/10/16

Please type or use black ink and print clearly.

Veterinarian or Case Coordinator: Name: Highland		First Name: Maggie	
Clinic: ADRU-ARS-USDA			
Street address: ADBF-WSU		Mailing Address or PO Box:	
City: Pullman	State: WA	Zip: 99164	
Phone: 509-335-6327	Fax: 509-335-8328	E-mail: mah@vetmed.wsu.edu	
Owner: Last Name first: same as above		Guardian Name: (if owner is under 18)	
Farm Name:		First Time Submitter? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Street address:		Mailing Address or PO Box:	
City:	State:	Zip:	
Phone:	Fax:	E-mail:	

Billing: Owner Clinic 3rd Party (preapproval required) Please note: WADDL policy is to bill the clinic if provided, unless-prepaid.

Reporting Preference: Mail Fax Web access - register on web site at <http://waddl.vetmed.wsu.edu>

Please fill out completely as possible:

Specimen(s) Submitted:		Date Collected: April 2016	
nasal swabs		Date Shipped:	
<small>(Please use WADDL Animal ID Sheet for multiple animals.)</small>			
Tests Requested:	<input type="checkbox"/> Necropsy	<input type="checkbox"/> Virology	<input type="checkbox"/> Bacteriology
	<input type="checkbox"/> Histopathology	<input type="checkbox"/> Serology	<input type="checkbox"/> Mycoplasma culture
	<input type="checkbox"/> Toxicology	<input type="checkbox"/> Fungal Culture	<input type="checkbox"/> Parasitology
			<input type="checkbox"/> IHC
			<input checked="" type="checkbox"/> PCR
			<input type="checkbox"/> Other: _____
<small>Note: WADDL reserves the right to modify the tests requested for more efficient case work-up and / or to send specimens to outside laboratories to perform testing not done at WADDL.</small>			
Animal ID (name/tag#)	Species	Breed	Age
see multiple animal form	goat	multiple	1mo-12yrs
Sex	Animal Weight		
Location of Lesion	No. in group	No. Dead	No. Sick
N/A			
* Was animal euthanized? If so, what method? N/A			

Additional History: Vaccinations, signs, stress factors, treatments, post mortem findings, pertinent feed or feed additives, clinical lab results, previous WADDL Case Numbers. (Attach additional sheets as necessary.)

Please save any remaining DNA isolations and call Maggie for pick up.

Bill to ADRU-ARS-USDA acct #RSA 2540-1080

Samples were maintained on ice then frozen w/in 2 days of collection + kept at -20°C since.

WADDL is an official brucellosis testing laboratory. All serology for brucellosis, including abortion screens, requires identification of animals, date of sample collection, and signature of an accredited veterinarian attesting to the following statement:
"I certify that the specimens submitted with this form were collected by me from the animal(s) described on the date indicated."

Veterinarian's, Clinician's or Owner's Signature:	Condition(s) Suspected:
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IDENTIFICATION SHEET FOR MULTIPLE ANIMALS

(To accompany WADDL Accession form, if needed)

Washington Animal Disease Diagnostic Laboratory
 College of Veterinary Medicine, Washington State University
 Mailing address: P.O. Box 647034
 Pullman, WA. 99164-7034
 Phone: (509) 335-9696
 E-Mail: waddl@vetmed.wsu.edu
 Web Site: http://waddl.vetmed.wsu.edu

Shipping address:
 Bustad Hall, Rm. 155-N
 Pullman, WA. 99164-7034
 FAX: (509) 335-7424

2016-6030
 Ref Vet: Highland, Margaret
 Owner: USDA-ARS-ADRU
 Breed: Domestic Goat
 Routing: .md

Owner: ADRU-ARS-USDA

Veterinarian: Maggie Highland

TEST(S) REQUESTED: Mycoplasma ovipneumoniae qPCR

05/10/16

Tube	Animal # or Name	Tube	Animal # or Name	Tube	Animal # or Name	Tube	Animal # or Name
1	3_A	26	5_F	51	3_D	76	
2	3_B	27	5_G	52	7_A	77	
3	3_C	28	5_H	53	7_B	78	
4	11_A	29	6_A	54	7_C	79	
5	11_B	30	6_B	55	7_D	80	
6	11_C	31	6_C	56	7_E	81	
7	11_D	32	6_D	57	11_A	82	
8	16_A	33	6_E	58	11_B	83	
9	16_B	34	6_F	59	11_C	84	
10	4_A	35	6_G	60	11_D	85	
11	4_B	36	8_A	61	12_A	86	
12	4_C	37	8_B	62	12_B	87	
13	4_D	38	8_C	63	12_C	88	
14	4_E	39	8_D	64	12_D	89	
15	4_F	40	9_A	65	12_E	90	
16	4_G	41	9_B	66	12_F	91	
17	10_A	42	9_C	67	12_G	92	
18	10_B	43	2_A	68	12_H	93	
19	10_C	44	2_B	69	12_I	94	
20	10_D	45	2_C	70	12_J	95	
21	5_A	46	2_D	71	12_K	96	
22	5_B	47	2_E	72	12_L	97	
23	5_C	48	3_A	73		98	
24	5_D	49	3_B	74		99	
25	5_E	50	3_C	75		100*	

* For over 100 samples, please copy this form and continue numbering.

Washington Animal Disease Diagnostic Lab

P.O. Box 647034
Pullman, WA 99164-7034
Telephone : (509) 335-9696
Fax : (509) 335-7424

Dr. Margaret Highland
USDA-ARS-ADRU
WSU - 3003 ADBF

Case#: 2016-6030
Report Date: 05/16/16

Pullman, WA 99164-6630

Submittal Date: 05/10/16
Owner: USDA-ARS-ADRU

Species: Domestic Goat

Age:
Sex:

Final Report:

Molecular Diagnostics- Reported on 05/16/16 Authorized by Daniel Bradway, Lab Manager

PCR-Mycoplasma ovipneumoniae SOP: 501.40RT.2016.03.17

Animal	Specimen	Result
[REDACTED] 3_A	Nasal swab	Not detected
[REDACTED] 3_B	Nasal swab	Not detected
[REDACTED] 3_C	Nasal swab	Not detected
[REDACTED] 11_A	Nasal swab	Not detected
[REDACTED] 11_B	Nasal swab	Not detected
[REDACTED] 11_C	Nasal swab	Not detected
[REDACTED] 11_D	Nasal swab	Not detected
[REDACTED] 16_A	Nasal swab	Not detected
[REDACTED] 16_B	Nasal swab	Not detected
[REDACTED] 4_A	Nasal swab	Detected
[REDACTED] 4_B	Nasal swab	Detected
[REDACTED] 4_C	Nasal swab	Detected
[REDACTED] 4_D	Nasal swab	Detected
[REDACTED] 4_E	Nasal swab	Detected
[REDACTED] 4_F	Nasal swab	Detected
[REDACTED] 4_G	Nasal swab	Detected
[REDACTED] 10_A	Nasal swab	Indeterminate
[REDACTED] 10_B	Nasal swab	Not detected
[REDACTED] 10_C	Nasal swab	Not detected
[REDACTED] 10_D	Nasal swab	Not detected
[REDACTED] 5_A	Nasal swab	Not detected
[REDACTED] 5_B	Nasal swab	Not detected
[REDACTED] 5_C	Nasal swab	Not detected
[REDACTED] 5_D	Nasal swab	Not detected
[REDACTED] 5_E	Nasal swab	Not detected
[REDACTED] 5_F	Nasal swab	Not detected
[REDACTED] 5_G	Nasal swab	Not detected
[REDACTED] 5_H	Nasal swab	Not detected

Washington Animal Disease Diagnostic Lab

PCR-Mycoplasma ovipneumoniae SOP: 501.40RT.2016.03.17

Animal	Specimen	Result
V.6.A	Nasal swab	Not detected
V.6.B	Nasal swab	Not detected
V.6.C	Nasal swab	Not detected
V.6.D	Nasal swab	Not detected
V.6.E	Nasal swab	Not detected
V.6.F	Nasal swab	Not detected
V.6.G	Nasal swab	Not detected
V.8.A	Nasal swab	Not detected
V.8.B	Nasal swab	Not detected
V.8.C	Nasal swab	Not detected
V.8.D	Nasal swab	Not detected
V.9.A	Nasal swab	Not detected
V.9.B	Nasal swab	Not detected
V.9.C	Nasal swab	Not detected
V.12.A	Nasal swab	Not detected
V.12.B	Nasal swab	Not detected
V.12.C	Nasal swab	Not detected
V.12.D	Nasal swab	Not detected
V.12.E	Nasal swab	Not detected
V.13.A	Nasal swab	Not detected
V.13.B	Nasal swab	Not detected
V.13.C	Nasal swab	Not detected
V.13.D	Nasal swab	Not detected
V.17.A	Nasal swab	Not detected
V.17.B	Nasal swab	Not detected
V.17.C	Nasal swab	Not detected
V.17.D	Nasal swab	Not detected
V.17.E	Nasal swab	Not detected
V.11.A	Nasal swab	Not detected
V.11.B	Nasal swab	Not detected
V.11.C	Nasal swab	Not detected
V.11.D	Nasal swab	Not detected
V.12.A	Nasal swab	Not detected
V.12.B	Nasal swab	Not detected
V.12.C	Nasal swab	Not detected
V.12.D	Nasal swab	Not detected
V.12.E	Nasal swab	Not detected
V.12.F	Nasal swab	Not detected
V.12.G	Nasal swab	Not detected
V.12.H	Nasal swab	Not detected
V.12.I	Nasal swab	Not detected
V.12.J	Nasal swab	Not detected
V.12.K	Nasal swab	Not detected
V.12.L	Nasal swab	Not detected

PCR-Mycoplasma ovipneumoniae test comment: This assay detects only Mycoplasma ovipneumoniae. Culture is available at WADDL to detect other species of Mycoplasma if desired. Fees for culture are available on our website. Please contact the lab if Mycoplasma culture or other testing is desired.

Quantity/Description/Routing of Samples

72 nasal swabs

2016-6030
Ref Vet: Highland, Margaret
Owner: USDA-ARS-ADRU
Breed: Domestic Goat
Router: ,md

Sample Condition:	<input type="checkbox"/> Room Temp.	<input type="checkbox"/> On ice	<input checked="" type="checkbox"/> Frozen	<input type="checkbox"/> Fixed	Contents match forms: <input type="checkbox"/> Yes <input type="checkbox"/> No Explain below: <i>not</i>	Opened by:
	Samples Received Via:					
	<input type="checkbox"/> US Mail	<input type="checkbox"/> FedEx	<input checked="" type="checkbox"/> Drop off			
	<input type="checkbox"/> UPS	<input type="checkbox"/> FedEx-R	<input type="checkbox"/> Other:			

Comments for Case Tracking:

by Margaret Highland



05/10/16
page 1 of 1

Sample Label

not

ACCESSION FORM FOR GENERAL DIAGNOSTICS
Washington Animal Disease Diagnostic Laboratory
 College of Veterinary Medicine, Washington State University
 Web Site: <http://waddl.vetmed.wsu.edu>

US Postal Service mailing address:
 PO Box 647034
 Pullman, WA. 99164-7034

UPS, FedEx or Courier shipping address:
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Phone: (509) 335-9696
 FAX: (509) 335 7424
 E-Mail: waddl@vetmed.wsu.edu

2016-6160
 Ref Vet: Highland, Margaret
 Owner: USDA - ARS - ADRU
 Breed: Domestic Goat
 Routed: .ind

Please type or use black ink and print clearly.

Veterinarian or Last Case Coordinator Name: **Highland** First Name: **Maggie**

Clinic: **ADRU-ARS-USDA**

Street address: **ADBF-WSU** Mailing Address or PO Box:

City: **Pullman** State: **WA** Zip: **99164**

Phone: **509-335-6327** Fax: **509-335-8328** E-mail: **mah@vetmed.wsu.edu**

Owner: Last Name first: **same as above** Guardian Name: (if owner is under 18)

Farm Name: First Time Submitter? Yes No

Street address: Mailing Address or PO Box:

City: State: Zip:

Phone: Fax: E-mail:

Billing: Owner Clinic 3rd Party (preapproval required) Please note: WADDL policy is to bill the clinic if provided, unless prepaid.

Reporting Preference: Mail Fax Web access - register on web site at <http://waddl.vetmed.wsu.edu>

Please fill out completely as possible:

Specimen(s) Submitted: **nasal swabs** Date Collected: **4/16-5/16**
 (Please use WADDL Animal ID Sheet for multiple animals.) Date Shipped:

Tests Requested: Necropsy Virology Bacteriology IHC
 Histopathology Serology Mycoplasma culture PCR
 Toxicology Fungal Culture Parasitology Other:

Note: WADDL reserves the right to modify the tests requested for more efficient case work-up and / or to send specimens to outside laboratories to perform testing not done at WADDL.

Animal ID (name/tag#)	Species	Breed	Age	Sex	Animal Weight
see multiple animal form	domestic goats	multiple	1mo-12yrs		
Location of Lesion	No. in group	No. Dead	No. Sick	No. on Premises	Duration of Problem
N/A					N/A

* Was animal euthanized? If so, what method? **N/A**

Additional History: Vaccinations, signs, stress factors, treatments, post mortem findings, pertinent feed or feed additives, clinical lab results, previous WADDL Case Numbers. (Attach additional sheets as necessary.)

Nasal swabs for *M. ovipneumoniae* qPCR

Please save any remaining DNA isolations and call Maggie for pick up.

Bill to ADRU-ARS-USDA acct #RSA 2540-1080

WADDL is an official brucellosis testing laboratory. All serology for brucellosis, including abortion screens, requires identification of animals, date of sample collection, and signature of an accredited veterinarian attesting to the following statement:

"I certify that the specimens submitted with this form were collected by me from the animal(s) described on the date indicated."

Veterinarian's, Clinician's or Owner's Signature: *Maggie [Signature]* Condition(s) Suspected: **None/Healthy Animals**

IDENTIFICATION SHEET FOR MULTIPLE ANIMALS

(To accompany WADDL Accession form, if needed)

Washington Animal Disease Diagnostic Laboratory
 College of Veterinary Medicine, Washington State University
 Mailing address: P.O. Box 647034 Pullman, WA. 99164-7034
 Phone: (509) 335-9696 E-Mail: waddl@vetmed.wsu.edu
 Shipping address: Bustad Hall, Rm. 155-N Pullman, WA. 99164-7034
 FAX: (509) 335-7424
 Web Site: <http://waddl.vetmed.wsu.edu>

2016 - 6160
 Ref Vet: Highland, Margaret
 Owner: USDA - ARS - ADRU
 Breed: Domestic Goat
 Routing: .md

05/12/16

Owner: ADRU-ARS-USDA

Veterinarian: Maggie Highland

TEST(S) REQUESTED: M. ovipneumoniae qPCR

Tube	Animal # or Name	Tube	Animal # or Name	Tube	Animal # or Name	Tube	Animal # or Name
1	<u>1_A</u>	26	<u>4_N</u>	51	<u>5_S</u>	76	<u>14_C</u>
2	<u>1_B</u>	27	<u>4_O</u>	52	<u>5_T</u>	77	<u>17_A</u>
3	<u>1_C</u>	28	<u>4_P</u>	53	<u>5_U</u>	78	<u>17_B</u>
4	<u>1_D</u>	29	<u>4_Q</u>	54	<u>5_V</u>	79	<u>17_C</u>
5	<u>1_E</u>	30	<u>4_R</u>	55	<u>5_W</u>	80	<u>17_D</u>
6	<u>1_F</u>	31	<u>4_S</u>	56	<u>5_X</u>	81	<u>17_E</u>
7	<u>1_G</u>	32	<u>4_T</u>	57	<u>5_Y</u>	82	<u>17_F</u>
8	<u>7_A</u>	33	<u>5_A</u>	58	<u>5_Z</u>	83	<u>17_G</u>
9	<u>7_B</u>	34	<u>5_B</u>	59	<u>8_A</u>	84	<u>17_H</u>
10	<u>7_C</u>	35	<u>5_C</u>	60	<u>8_B</u>	85	<u>17_I</u>
11	<u>7_D</u>	36	<u>5_D</u>	61	<u>8_C</u>	86	<u>22_A</u>
12	<u>7_E</u>	37	<u>5_E</u>	62	<u>9_A</u>	87	<u>22_B</u>
13	<u>4_A</u>	38	<u>5_F</u>	63	<u>9_B</u>	88	<u>22_C</u>
14	<u>4_B</u>	39	<u>5_G</u>	64	<u>9_C</u>	89	<u>23_A</u>
15	<u>4_C</u>	40	<u>5_H</u>	65	<u>9_D</u>	90	<u>23_B</u>
16	<u>4_D</u>	41	<u>5_I</u>	66	<u>9_E</u>	91	<u>23_C</u>
17	<u>4_E</u>	42	<u>5_J</u>	67	<u>19_A</u>	92	<u>23_D</u>
18	<u>4_F</u>	43	<u>5_K</u>	68	<u>19_B</u>	93	<u>23_E</u>
19	<u>4_G</u>	44	<u>5_L</u>	69	<u>10_A</u>	94	<u>23_F</u>
20	<u>4_H</u>	45	<u>5_M</u>	70	<u>10_B</u>	95	<u>23_G</u>
21	<u>4_I</u>	46	<u>5_N</u>	71	<u>6_A</u>	96	<u>2_A</u>
22	<u>4_J</u>	47	<u>5_O</u>	72	<u>6_B</u>	97	<u>2_B</u>
23	<u>4_K</u>	48	<u>5_P</u>	73	<u>6_C</u>	98	<u>12_A</u>
24	<u>4_L</u>	49	<u>5_Q</u>	74	<u>14_A</u>	99	<u>12_B</u>
25	<u>4_M</u>	50	<u>5_R</u>	75	<u>14_B</u>	100 *	<u>12_C</u>

* For over 100 samples, please copy this form and continue numbering.

IDENTIFICATION SHEET FOR MULTIPLE ANIMALS

(To accompany WADDL Accession form, if needed)

Washington Animal Disease Diagnostic Laboratory
 College of Veterinary Medicine, Washington State University
 Mailing address: P.O. Box 647034 Pullman, WA. 99164-7034
 Phone: (509) 335-9696 E-Mail: waddl@vetmed.wsu.edu
 Web Site: http://waddl.vetmed.wsu.edu

2016 - 6160
 Ref Vet: Highland, Margaret
 Owner: USDA - ARS - ADRU
 Breed: Domestic Goat
 Routing: .mid

Owner: ADRU-ARS-USDA

Veterinarian: Maggie Highland

TEST(S) REQUESTED: M. ovipneumoniae qPCR

05/12/16

Tube	Animal # or Name	Tube	Animal # or Name	Tube	Animal # or Name	Tube	Anim
1	<u>12_D</u>	26		51		76	
2	<u>20_A</u>	27		52		77	
3	<u>20_B</u>	28		53		78	
4		29		54		79	
5		30		55		80	
6		31		56		81	
7		32		57		82	
8		33		58		83	
9		34		59		84	
10		35		60		85	
11		36		61		86	
12		37		62		87	
13		38		63		88	
14		39		64		89	
15		40		65		90	
16		41		66		91	
17		42		67		92	
18		43		68		93	
19		44		69		94	
20		45		70		95	
21		46		71		96	
22		47		72		97	
23		48		73		98	
24		49		74		99	
25		50		75		100 *	

* For over 100 samples, please copy this form and continue numbering

Washington Animal Disease Diagnostic Lab

P.O. Box 647034
Pullman, WA 99164-7034
Telephone : (509) 335-9696
Fax : (509) 335-7424

Dr. Margaret Highland
USDA-ARS-ADRU
WSU - 3003 ADBF

Case#: 2016-6160
Report Date: 05/16/16

Pullman, WA 99164-6630

Submittal Date: 05/12/16
Owner: USDA-ARS-ADRU

Species: Domestic Goat

Age:
Sex:

Final Report:

Molecular Diagnostics- Reported on 05/16/16 Authorized by Daniel Bradway, Lab Manager

PCR-Mycoplasma ovipneumoniae SOP: 501.40RT.2016.03.17

Animal	Specimen	Result
.1.A	Nasal swab	Not detected
.1.B	Nasal swab	Not detected
.1.C	Nasal swab	Not detected
.1.D	Nasal swab	Not detected
.1.E	Nasal swab	Not detected
.1.F	Nasal swab	Not detected
.1.G	Nasal swab	Not detected
.7.A	Nasal swab	Not detected
.7.B	Nasal swab	Not detected
.7.C	Nasal swab	Not detected
.7.D	Nasal swab	Not detected
.7.E	Nasal swab	Not detected
.4.A	Nasal swab	Not detected
.4.B	Nasal swab	Not detected
.4.C	Nasal swab	Not detected
.4.D	Nasal swab	Not detected
.4.E	Nasal swab	Not detected
.4.F	Nasal swab	Not detected
.4.G	Nasal swab	Not detected
.4.H	Nasal swab	Not detected
.4.I	Nasal swab	Detected
.4.J	Nasal swab	Indeterminate
.4.K	Nasal swab	Not detected
.4.L	Nasal swab	Not detected
.4.M	Nasal swab	Not detected
.4.N	Nasal swab	Not detected
.4.O	Nasal swab	Indeterminate
.4.P	Nasal swab	Indeterminate

Washington Animal Disease Diagnostic Lab

PCR-Mycoplasma ovipneumoniae SOP: 501.40RT.2016.03.17

Animal	Specimen	Result
4.Q	Nasal swab	Indeterminate
4.R	Nasal swab	Not detected
4.S	Nasal swab	Detected
4.T	Nasal swab	Detected
5.A	Nasal swab	Not detected
5.B	Nasal swab	Not detected
5.C	Nasal swab	Not detected
5.D	Nasal swab	Not detected
5.E	Nasal swab	Not detected
5.F	Nasal swab	Not detected
5.G	Nasal swab	Not detected
5.H	Nasal swab	Not detected
5.I	Nasal swab	Not detected
5.J	Nasal swab	Not detected
5.K	Nasal swab	Not detected
5.L	Nasal swab	Not detected
5.M	Nasal swab	Not detected
5.N	Nasal swab	Not detected
5.O	Nasal swab	Not detected
5.P	Nasal swab	Not detected
5.Q	Nasal swab	Not detected
5.R	Nasal swab	Not detected
5.S	Nasal swab	Not detected
5.T	Nasal swab	Not detected
5.U	Nasal swab	Not detected
5.V	Nasal swab	Not detected
5.W	Nasal swab	Not detected
5.X	Nasal swab	Not detected
5.Y	Nasal swab	Not detected
5.Z	Nasal swab	Not detected
8.A	Nasal swab	Not detected
8.B	Nasal swab	Not detected
8.C	Nasal swab	Not detected
9.A	Nasal swab	Not detected
9.B	Nasal swab	Not detected
9.C	Nasal swab	Not detected
9.D	Nasal swab	Not detected
9.E	Nasal swab	Not detected
19.A	Nasal swab	Not detected
19.B	Nasal swab	Not detected
10.A	Nasal swab	Not detected
10.B	Nasal swab	Not detected
6.A	Nasal swab	Not detected
6.B	Nasal swab	Not detected
6.C	Nasal swab	Not detected
14.A	Nasal swab	Not detected
14.B	Nasal swab	Not detected
14.C	Nasal swab	Not detected
17.A	Nasal swab	Not detected
17.B	Nasal swab	Not detected
17.C	Nasal swab	Not detected
17.D	Nasal swab	Not detected

Washington Animal Disease Diagnostic Lab

PCR-Mycoplasma ovipneumoniae SOP: 501.40RT.2016.03.17

Animal	Specimen	Result
[REDACTED] 17.E	Nasal swab	Not detected
[REDACTED] 17.F	Nasal swab	Not detected
[REDACTED] 17.G	Nasal swab	Not detected
[REDACTED] 17.H	Nasal swab	Not detected
[REDACTED] 17.I	Nasal swab	Not detected
[REDACTED] 22.A	Nasal swab	Not detected
[REDACTED] 22.B	Nasal swab	Not detected
[REDACTED] 22.C	Nasal swab	Not detected
[REDACTED] 23.A	Nasal swab	Not detected
[REDACTED] 23.B	Nasal swab	Not detected
[REDACTED] 23.C	Nasal swab	Not detected
[REDACTED] 23.D	Nasal swab	Not detected
[REDACTED] 23.E	Nasal swab	Not detected
[REDACTED] 23.F	Nasal swab	Not detected
[REDACTED] 23.G	Nasal swab	Not detected
[REDACTED] 2.A	Nasal swab	Not detected
[REDACTED] 2.B	Nasal swab	Not detected
[REDACTED] 12.A	Nasal swab	Not detected
[REDACTED] 12.B	Nasal swab	Not detected
[REDACTED] 12.C	Nasal swab	Not detected
[REDACTED] 12.D	Nasal swab	Not detected
[REDACTED] 20.A	Nasal swab	Not detected
[REDACTED] 20.B	Nasal swab	Not detected

PCR-Mycoplasma ovipneumoniae test comment: This assay detects only Mycoplasma ovipneumoniae. Culture is available at WADDL to detect other species of Mycoplasma if desired. Fees for culture are available on our website. Please contact the lab if Mycoplasma culture or other testing is desired.

Quantity/Description/Routing of Samples

103 nasal swabs

- Dropped off by M. Highland

2016-6160
Ref Vet: Highland, Margaret
Owner: USDA - ARS - ADRU
Breed: Domestic Goat
Routed: .ind

Sample Condition:	<input type="checkbox"/> Room Temp.	<input type="checkbox"/> On ice	<input checked="" type="checkbox"/> Frozen	<input type="checkbox"/> Fixed	Contents match forms: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Explain below:	Opened by: <i>WHT</i>
	Samples Received Via:					
	<input type="checkbox"/> US Mail	<input type="checkbox"/> FedEx	<input checked="" type="checkbox"/> Drop off			
	<input type="checkbox"/> UPS	<input type="checkbox"/> FedEx-R	<input type="checkbox"/> Other:			

Comments for Case Tracking:



05/12/16
Index: 1 page

Sample Label

WHT

**ACCESSION FORM FOR GENERAL DIAGNOSTICS
Washington Animal Disease Diagnostic Laboratory**

College of Veterinary Medicine, Washington State University
Web Site: <http://waddl.vetmed.wsu.edu>

US Postal Service mailing address:
PO Box 647034
Pullman, WA. 99164-7034

UPS, FedEx or Courier shipping address:
Bustad Hall, Rm.155-N
Pullman, WA. 99164-7034

Phone: (509) 335-9696
FAX: (509) 335 7424
E-Mail: waddl@vetmed.wsu.edu

2016 - 7117
Ret Vet: Highland, Margaret
Owner: USDA - ARS - ADRU
Breed: Domestic Goat
Routed: md

Please type or use black ink and print clearly.

Veterinarian or Case Coordinator: Last Name: Highland		First Name: Maggie	
Clinic: ADRU-ARS-USDA			
Street address: ADBF 3033		Mailing Address or PO Box:	
City: Pullman	State: WA	Zip: 99163	
Phone: 5-6327	Fax: 5-8328	E-mail: mah@vetmed.wsu.edu	

Owner: Last Name first: same as above		Guardian Name: (if owner is under 18)	
Farm Name:		First Time Submitter? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Street address:		Mailing Address or PO Box:	
City:	State:	Zip:	
Phone:	Fax:	E-mail:	

Billing: Owner Clinic 3rd Party (preapproval required) Please note: WADDL policy is to bill the clinic if provided, unless prepaid.
Reporting Preference: Mail Fax Web access - register on web site at <http://waddl.vetmed.wsu.edu>

Please fill out completely as possible:

Specimen(s) Submitted:		Date Collected: May 2016	
nasal swabs		Date Shipped:	
<small>(Please use WADDL Animal ID Sheet for multiple animals.)</small>			
Tests Requested:		Mycoplasma ovipneumoniae qPCR	
<input type="checkbox"/> Necropsy	<input type="checkbox"/> Virology	<input type="checkbox"/> Bacteriology	<input type="checkbox"/> IHC
<input type="checkbox"/> Histopathology	<input type="checkbox"/> Serology	<input type="checkbox"/> Mycoplasma culture	<input checked="" type="checkbox"/> PCR
<input type="checkbox"/> Toxicology	<input type="checkbox"/> Fungal Culture	<input type="checkbox"/> Parasitology	<input type="checkbox"/> Other:
<small>Note: WADDL reserves the right to modify the tests requested for more efficient case work-up and / or to send specimens to outside laboratories to perform testing not done at WADDL.</small>			
Animal ID (name/tag#)	Species	Breed	Age
see multiple animal form	domestic goats	-	adult
Sex	Animal Weight		
-	-		
Location of Lesion	No. in group	No. Dead	No. Sick
N/A	N/A	N/A	N/A
No. on Premises			
N/A			
Duration of Problem			
N/A			

* Was animal euthanized? If so, what method?

Additional History: Vaccinations, signs, stress factors, treatments, post mortem findings, pertinent feed or feed additives, clinical lab results, previous WADDL Case Numbers. (Attach additional sheets as necessary.)

M. ovipneumoniae qPCR
Please save remaining DNA isolations and call Maggie for pick up.

Bill to ADRU-ARS-USDA acct #RSA 2540-1080

WADDL is an official brucellosis testing laboratory. All serology for brucellosis, including abortion screens, requires identification of animals, date of sample collection, and signature of an accredited veterinarian attesting to the following statement:

"I certify that the specimens submitted with this form were collected by me from the animal(s) described on the date indicated."

Veterinarian's, Clinician's or Owner's Signature:	Condition(s) Suspected:
---	-------------------------

IDENTIFICATION SHEET FOR MULTIPLE ANIMALS

(To accompany WADDL Accession form, if needed)

Washington Animal Disease Diagnostic Laboratory
 College of Veterinary Medicine, Washington State University
 Mailing address: P.O. Box 647034 Pullman, WA. 99164-7034
 Phone: (509) 335-9696 E-Mail: waddl@vetmed.wsu.edu
 Web Site: http://waddl.vetmed.wsu.edu

Shipping address:
 Bustad Hall, Rm. 155-N
 Pullman, WA. 99164-7034
 FAX: (509) 335-7424

2016-7117
 Ref Vet: Highland, Margaret
 Owner: USDA - ARS - ADRU
 Breed: Domestic Goat
 Routing: .jmd

06/02/16

Owner: ADRU-ARS-USDA

Veterinarian: Highland

TEST(S) REQUESTED: M. ovipneumoniae qPCR

Tube	Animal # or Name	Tube	Animal # or Name	Tube	Animal # or Name	Tube	e
1	<u>13_A</u>	26		51		76	
2	<u>13_B</u>	27		52		77	
3	<u>13_C</u>	28		53		78	
4	<u>13_D</u>	29		54		79	
5	<u>15_A</u>	30		55		80	
6	<u>15_B</u>	31		56		81	
7	<u>15_C</u>	32		57		82	
8	<u>15_D</u>	33		58		83	
9		34		59		84	
10		35		60		85	
11		36		61		86	
12		37		62		87	
13		38		63		88	
14		39		64		89	
15		40		65		90	
16		41		66		91	
17		42		67		92	
18		43		68		93	
19		44		69		94	
20		45		70		95	
21		46		71		96	
22		47		72		97	
23		48		73		98	
24		49		74		99	
25		50		75		100 *	

* For over 100 samples, please copy this form and continue numbering.

Washington Animal Disease Diagnostic Lab

**P.O. Box 647034
Pullman, WA 99164-7034
Telephone : (509) 335-9696
Fax : (509) 335-7424**

**Dr. Margaret Highland
USDA-ARS-ADRU
WSU - 3003 ADBF**

**Case#: 2016-7117
Report Date: 06/07/16**

Pullman, WA 99164-6630

Submittal Date: 06/02/16
Owner: USDA-ARS-ADRU

Species: Domestic Goat

Age: Adult
Sex:

Final Report:

Molecular Diagnostics- Reported on 06/07/16 Authorized by Daniel Bradway, Lab Manager

PCR-Mycoplasma ovipneumoniae SOP: 501.40RT.2016.03.17

Animal	Specimen	Result
[REDACTED]_13.A	Nasal swab	Not detected
[REDACTED]_13.B	Nasal swab	Not detected
[REDACTED]_13.C	Nasal swab	Not detected
[REDACTED]_13.D	Nasal swab	Not detected
[REDACTED]_15.A	Nasal swab	Not detected
[REDACTED]_15.B	Nasal swab	Not detected
[REDACTED]_15.C	Nasal swab	Not detected
[REDACTED]_15.D	Nasal swab	Not detected

PCR-Mycoplasma ovipneumoniae test comment: This assay detects only Mycoplasma ovipneumoniae. Culture is available at WADDL to detect other species of Mycoplasma if desired. Fees for culture are available on our website. Please contact the lab if Mycoplasma culture or other testing is desired.

Quantity/Description/Routing of Samples

8 Nasal swabs
- dropped off
by MAH

2016 - 7117
Ref Vet: Highland, Margaret
Owner: USDA - ARS - ADRU
Breed: Domestic Goat
Routed: jmd

Sample Condition:	<input type="checkbox"/> Room Temp.	<input type="checkbox"/> On ice	<input checked="" type="checkbox"/> Frozen	<input type="checkbox"/> Fixed	Contents match forms:	Opened by:
Samples Received Via:	<input type="checkbox"/> US Mail	<input type="checkbox"/> FedEx	<input checked="" type="checkbox"/> Drop off	Explain below: <i>not</i>		
	<input type="checkbox"/> UPS	<input type="checkbox"/> FedEx-R	<input type="checkbox"/> Other:			

Comments for Case Tracking:



06/02/16
index: 1 page

Sample Label <input checked="" type="checkbox"/>
<i>MAH</i>

ACCESSION FORM FOR GENERAL DIAGNOSTICS
Washington Animal Disease Diagnostic Laboratory

College of Veterinary Medicine, Washington State University
 Web Site: <http://waddl.vetmed.wsu.edu>

US Postal Service mailing address:
 PO Box 647034
 Pullman, WA. 99164-7034

UPS, FedEx or Courier shipping address:
 Bustad Hall, Rm.155-N
 Pullman, WA. 99164-7034

Phone: (509) 335-9696
 FAX: (509) 335 7424
 E-Mail: waddl@vetmed.wsu.edu

2016-7913
 Ref Vet: Highland, Margaret
 Owner:
 Breed: Domestic Goat
 Routed: md

06/20/16
 Form: 3 pages

Please type or use black ink and print clearly.

Veterinarian or Last Case Coordinator Name: Highland		First Name: Maggie	
Clinic: ADRU-ARS-USDA			
Street address: ADBF 3033		Mailing Address or PO Box:	
City: Pullman	State: WA	Zip: 99164	
Phone: 509-335-6327	Fax: 509-335-8328	E-mail: mah@vetmed.wsu.edu	
Owner Last Name first: same as above		Guardian Name: (if owner is under 18)	
Farm Name:		First Time Submitter? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Street address:		Mailing Address or PO Box:	
City:	State:	Zip:	
Phone:	Fax:	E-mail:	

Billing: Owner Clinic 3rd Party (preapproval required) Please note: WADDL policy is to bill the clinic if provided, unless prepaid.
Reporting Preference: Mail Fax Web access - register on web site at <http://waddl.vetmed.wsu.edu>

Please fill out completely as possible:

Specimen(s) Submitted:		Date Collected: June 2016	
nasal swabs		Date Shipped:	
<small>(Please use WADDL Animal ID Sheet for multiple animals.)</small>			
Tests Requested:	<input type="checkbox"/> Necropsy	<input type="checkbox"/> Virology	<input type="checkbox"/> Bacteriology
	<input type="checkbox"/> Histopathology	<input type="checkbox"/> Serology	<input type="checkbox"/> Mycoplasma culture
	<input type="checkbox"/> Toxicology	<input type="checkbox"/> Fungal Culture	<input type="checkbox"/> Parasitology
			<input type="checkbox"/> IHC
			<input checked="" type="checkbox"/> PCR
			<input type="checkbox"/> Other: _____
<small>Note: WADDL reserves the right to modify the tests requested for more efficient case work-up and / or to send specimens to outside laboratories to perform testing not done at WADDL.</small>			
Animal ID (name/tag#)	Species	Breed	Age
see multiple animal form	domestic goats	multiple	multiple
Sex	Animal Weight	Duration of Problem	
N/A	N/A	N/A	

* Was animal euthanized? If so, what method?

Additional History: Vaccinations, signs, stress factors, treatments, post mortem findings, pertinent feed or feed additives, clinical lab results, previous WADDL Case Numbers. (Attach additional sheets as necessary.)

M.ovipneumoniae qPCR on each sample.
 Please save remaining DNA isolation and call Maggie for pick up or may request further testing (sequencing) be performed by WADDL, depending on the results of qPCR analyses.

Bill to ADRU-ARS-USDA acct #RSA 2540-1080

WADDL is an official brucellosis testing laboratory. All serology for brucellosis, including abortion screens, requires identification of animals, date of sample collection, and signature of an accredited veterinarian attesting to the following statement:

"I certify that the specimens submitted with this form were collected by me from the animal(s) described on the date indicated."

Veterinarian's, Clinician's or Owner's Signature: <i>Maggie Highland</i>	Condition(s) Suspected: N/A (surveillance)
--	---

IDENTIFICATION SHEET FOR MULTIPLE ANIMALS

(To accompany WADDL Accession form, if needed)

Washington Animal Disease Diagnostic Laboratory
College of Veterinary Medicine, Washington State University

Mailing address: P.O. Box 647034
Pullman, WA. 99164-7034
Phone: (509) 335-9696
E-Mail: waddl@vetmed.wsu.edu
Web Site: http://waddl.vetmed.wsu.edu

Shipping address: Bustad Hall, Rm.155-N
Pullman, WA. 99164-7034
FAX: (509) 335-7424

2016-7913

06/20/16

Ref Vet: Highland, Margaret
Owner:
Breed: Domestic Goat
Routing: md

Owner: ADRU-ARS-USDA

Veterinarian: Highland

TEST(S) REQUESTED: Mycoplasma ovipneumoniae qPCR

Tube	Animal # or Name	Tube	Animal # or Name	Tube	Animal # or Name	Tube	Animal # or Name
1	24_A	26	1_S	51	[REDACTED]	76	5_B
2	24_B	27	1_T	52	[REDACTED]	77	5_C
3	24_C	28	1_U	53	[REDACTED]	78	5_D
4	3_A	29	1_V	54	[REDACTED]	79	5_E
5	3_B	30	1_W	55	[REDACTED]	80	5_F
6	3_C	31	1_X	56	[REDACTED]	81	5_G
7	3_D	32	1_Y	57	[REDACTED]	82	5_H
8	1_A	33	1_Aa	58	[REDACTED]	83	5_I
9	1_B	34	1_Bb	59	[REDACTED]	84	5_J
10	1_C	35	1_Cc	60	[REDACTED]	85	5_K
11	1_D	36	1_Dd	61	[REDACTED]	86	5_L
12	1_E	37	1_Ee	62	[REDACTED]	87	5_M
13	1_F	38	1_Ff	63	[REDACTED]	88	5_N
14	1_G	39	1_Gg	64	[REDACTED]	89	5_O
15	1_H	40	1_Hh	65	[REDACTED]	90	5_P
16	1_I	41	1_Ii	66	[REDACTED]	91	4_A
17	1_J	42	1_Jj	67	[REDACTED]	92	4_B
18	1_K	43	1_Kk	68	[REDACTED]	93	2_A
19	1_L	44	1_Ll	69	[REDACTED]	94	2_B
20	1_M	45	1_Mm	70	[REDACTED]	95	2_C
21	1_N	46	1_Nn	71	[REDACTED]	96	2_D
22	1_O	47	1_Oo	72	4_A	97	2_E
23	1_P	48	[REDACTED]	73	4_B	98	2_F
24	1_Q	49	[REDACTED]	74	4_C	99	2_G
25	1_R	50	[REDACTED]	75	5_A	100*	2_H

* For over 100 samples, please copy this form and continue numbering.

IDENTIFICATION SHEET FOR MULTIPLE ANIMALS

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Shipping address:
 Bustad Hall, Rm. 155-N
 Pullman, WA. 99164-7034
 FAX: (509) 335-7424

2016-7913

06/20/16

Ref Vet: Highland, Margaret
 Owner:
 Breed: Domestic Goat
 Routing: md

Owner: ADRU-ARS-USDA

Veterinarian: HIGHLAND

TEST(S) REQUESTED: M. ovipneumoniae qPCR

Tube	Animal # or Name	Tube	Animal # or Name	Tube	Animal # or Name	Tube	Animal # or Name
1	5_A	26	2_A	51		76	
2	5_B	27	2_B	52	6_G	77	
3	5_C	28	2_C	53	13_A	78	
4	5_D	29	2_D	54	13_B	79	
5	5_E	30	3_A	55	13_C	80	
6	5_F	31	3_B	56	13_D	81	
7	5_G	32	3_C	57	13_E	82	
8	5_H	33	3_D	58	13_F	83	
9	5_I	34	4_A	59	2-b-H	84	
10	5_J	35	4_B	60	2-A	85	
11	5_K	36	4_C	61	2-B	86	
12	5_L	37	1_A	62	2-C	87	
13	5_M	38	1_B	63	2-D	88	
14	5_N	39	21_A	64	2-E	89	
15	5_O	40	5_A	65	2-F	90	
16	5_P	41	5_B	66	2-G	91	
17	4_A	42	5_C	67	2-H	92	
18	4_B	43	5_D	68	2-I	93	
19	1_A	44	5_E	69	2-A	94	
20	1_B	45	6_A	70	2-B	95	
21	1_C	46	6_B	71	2-C	96	
22	1_D	47	6_C	72	2-D	97	
23	1_E	48	6_D	73	7-A	98	
24	7_A	49	6_E	74	7-B	99	
25	7_B	50	6_F	75		100*	

* For over 100 samples, please copy this form and continue numbering.

Washington Animal Disease Diagnostic Lab

P.O. Box 647034
Pullman, WA 99164-7034
Telephone : (509) 335-9696
Fax : (509) 335-7424

Dr. Margaret Highland
USDA-ARS-ADRU
WSU - 3003 ADBF

Case#: 2016-7913
Report Date: 07/01/16

Pullman, WA 99164-6630

Submittal Date: 06/20/16
Owner:

Species: Domestic Goat

Age:
Sex:

Final Report:

Molecular Diagnostics- Reported on 07/01/16 Authorized by Daniel Bradway, Lab Manager

PCR-Mycoplasma ovipneumoniae SOP: 501.40RT.2016.03.17

Animal	Specimen	Result
[REDACTED] 24.A	Nasal swab	Not detected
[REDACTED] 24.B	Nasal swab	Not detected
[REDACTED] 24.C	Nasal swab	Not detected
[REDACTED] 0.3.A	Nasal swab	Not detected
[REDACTED] 0.3.B	Nasal swab	Not detected
[REDACTED] 0.3.C	Nasal swab	Not detected
[REDACTED] 0.3.D	Nasal swab	Not detected
[REDACTED] 1.A	Nasal swab	Not detected
[REDACTED] 1.B	Nasal swab	Not detected
[REDACTED] 1.C	Nasal swab	Indeterminate
[REDACTED] 1.D	Nasal swab	Not detected
[REDACTED] 1.E	Nasal swab	Not detected
[REDACTED] 1.F	Nasal swab	Not detected
[REDACTED] 1.G	Nasal swab	Not detected
[REDACTED] 1.H	Nasal swab	Detected
[REDACTED] 1.I	Nasal swab	Not detected
[REDACTED] 1.J	Nasal swab	Not detected
[REDACTED] 1.K	Nasal swab	Not detected
[REDACTED] 1.L	Nasal swab	Not detected
[REDACTED] 1.M	Nasal swab	Not detected
[REDACTED] 1.N	Nasal swab	Not detected
[REDACTED] 1.O	Nasal swab	Not detected
[REDACTED] 1.P	Nasal swab	Not detected
[REDACTED] 1.Q	Nasal swab	Not detected
[REDACTED] 1.R	Nasal swab	Not detected
[REDACTED] 1.S	Nasal swab	Not detected
[REDACTED] 1.T	Nasal swab	Not detected
[REDACTED] 1.U	Nasal swab	Not detected

Washington Animal Disease Diagnostic Lab

PCR-Mycoplasma ovipneumoniae SOP: 501.40RT.2016.03.17

Animal	Specimen	Result
1.V	Nasal swab	Not detected
1.W	Nasal swab	Not detected
1.X	Nasal swab	Not detected
1.Y	Nasal swab	Not detected
1.Aa	Nasal swab	Not detected
1.Bb	Nasal swab	Detected
1.Cc	Nasal swab	Not detected
1.Dd	Nasal swab	Not detected
1.Ee	Nasal swab	Detected
1.Ff	Nasal swab	Detected
1.Gg	Nasal swab	Indeterminate
1.Hh	Nasal swab	Not detected
1.Ii	Nasal swab	Indeterminate
1.Jj	Nasal swab	Detected
1.Kk	Nasal swab	Not detected
1.Ll	Nasal swab	Indeterminate
1.Mm	Nasal swab	Not detected
1.Nn	Nasal swab	Indeterminate
1.Oo	Nasal swab	Detected
4.A	Nasal swab	Not detected
4.B	Nasal swab	Not detected
4.C	Nasal swab	Not detected
5.A	Nasal swab	Not detected
5.B	Nasal swab	Not detected
5.C	Nasal swab	Not detected
5.D	Nasal swab	Not detected
5.E	Nasal swab	Not detected
5.F	Nasal swab	Not detected
5.G	Nasal swab	Not detected
5.H	Nasal swab	Not detected
5.I	Nasal swab	Not detected
5.J	Nasal swab	Not detected
5.K	Nasal swab	Not detected
5.L	Nasal swab	Not detected
5.M	Nasal swab	Not detected
5.N	Nasal swab	Not detected
5.O	Nasal swab	Not detected
5.P	Nasal swab	Indeterminate
4.A	Nasal swab	Not detected
4.B	Nasal swab	Not detected
2.A	Nasal swab	Not detected
2.B	Nasal swab	Not detected
2.C	Nasal swab	Not detected
2.D	Nasal swab	Not detected
2.E	Nasal swab	Not detected
2.F	Nasal swab	Not detected
2.G	Nasal swab	Not detected
2.H	Nasal swab	Not detected
5.A	Nasal swab	Not detected
5.B	Nasal swab	Not detected
5.C	Nasal swab	Not detected
5.D	Nasal swab	Not detected

Washington Animal Disease Diagnostic Lab

PCR-Mycoplasma ovipneumoniae SOP: 501.40RT.2016.03.17

Animal	Specimen	Result
T.5.E	Nasal swab	Indeterminate
T.5.F	Nasal swab	Not detected
T.5.G	Nasal swab	Not detected
T.5.H	Nasal swab	Not detected
T.5.I	Nasal swab	Not detected
T.5.J	Nasal swab	Not detected
T.5.K	Nasal swab	Not detected
T.5.L	Nasal swab	Not detected
T.5.M	Nasal swab	Not detected
T.5.N	Nasal swab	Not detected
T.5.O	Nasal swab	Detected
T.5.P	Nasal swab	Indeterminate
Y.4.A	Nasal swab	Not detected
Y.4.B	Nasal swab	Not detected
X.1.A	Nasal swab	Not detected
X.1.B	Nasal swab	Not detected
X.1.C	Nasal swab	Not detected
X.1.D	Nasal swab	Not detected
X.1.E	Nasal swab	Not detected
Z.7.A	Nasal swab	Not detected
Z.7.B	Nasal swab	Indeterminate
Z.2.A	Nasal swab	Not detected
Z.2.B	Nasal swab	Not detected
Z.2.C	Nasal swab	Indeterminate
Z.2.D	Nasal swab	Not detected
Z.3.A	Nasal swab	Not detected
Z.3.B	Nasal swab	Not detected
Z.3.C	Nasal swab	Not detected
Z.3.D	Nasal swab	Not detected
Z.4.A	Nasal swab	Not detected
Z.4.B	Nasal swab	Not detected
Z.4.C	Nasal swab	Not detected
Z.1.A	Nasal swab	Not detected
Z.1.B	Nasal swab	Not detected
Z.21.A	Nasal swab	Not detected
Z.R.5.A	Nasal swab	Not detected
Z.R.5.B	Nasal swab	Not detected
Z.R.5.C	Nasal swab	Indeterminate
Z.R.5.D	Nasal swab	Indeterminate
Z.R.5.E	Nasal swab	Not detected
Z.6.A	Nasal swab	Not detected
Z.6.B	Nasal swab	Not detected
Z.6.C	Nasal swab	Not detected
Z.6.D	Nasal swab	Not detected
Z.6.E	Nasal swab	Not detected
Z.6.F	Nasal swab	Not detected
Z.6.G	Nasal swab	Not detected
Z.6.H	Nasal swab	Not detected
Z.13.A	Nasal swab	Not detected
Z.13.B	Nasal swab	Not detected
Z.13.C	Nasal swab	Not detected
Z.13.D	Nasal swab	Not detected

Washington Animal Disease Diagnostic Lab

PCR-Mycoplasma ovipneumoniae SOP: 501.40RT.2016.03.17

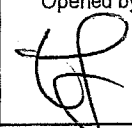
Animal	Specimen	Result
13_E	Nasal swab	Not detected
13_F	Nasal swab	Not detected
2_A	Nasal swab	Not detected
2_B	Nasal swab	Not detected
2_C	Nasal swab	Not detected
2_D	Nasal swab	Not detected
2_E	Nasal swab	Not detected
2_F	Nasal swab	Not detected
2_G	Nasal swab	Not detected
2_H	Nasal swab	Detected
2_I	Nasal swab	Not detected
2_A	Nasal swab	Not detected
2_B	Nasal swab	Not detected
2_C	Nasal swab	Not detected
2_D	Nasal swab	Not detected
7_A	Nasal swab	Not detected
7_B	Nasal swab	Not detected

PCR-Mycoplasma ovipneumoniae test comment: This assay detects only Mycoplasma ovipneumoniae. Culture is available at WADDL to detect other species of Mycoplasma if desired. Fees for culture are available on our website. Please contact the lab if Mycoplasma culture or other testing is desired.

Quantity/Description/Routing of Samples

149 dry swabs

2016-7913
Ref Vet: Highland, Margaret
Owner:
Breed: Domestic Goat
Routed: md


Sample Condition:	<input type="checkbox"/> Room Temp.	<input type="checkbox"/> On ice	<input checked="" type="checkbox"/> Frozen	<input type="checkbox"/> Fixed	Contents match forms: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Explain below:	Opened by: 
	Samples Received Via:					
	<input type="checkbox"/> US Mail	<input type="checkbox"/> FedEx	<input checked="" type="checkbox"/> Drop off			
	<input type="checkbox"/> UPS	<input type="checkbox"/> FedEx-R	<input type="checkbox"/> Other:			



06/20/16
Index: 1 page

Comments for Case Tracking:

Sample Label



**ACCESSION FORM FOR GENERAL DIAGNOSTICS
Washington Animal Disease Diagnostic Laboratory**

College of Veterinary Medicine, Washington State University

Web Site: <http://waddl.vetmed.wsu.edu>

US Postal Service mailing address:
PO Box 647034
Pullman, WA. 99164-7034

UPS, FedEx or Courier shipping address:
Bustad Hall, Rm.155-N
Pullman, WA. 99164-7034

Phone: (509) 335-9696
FAX: (509) 335 7424
E-Mail: waddl@vetmed.wsu.edu

2016 - 10050
Ret Vet: Highland, Margaret
Owner: USDA - ARS - ADRU
Breed: Domestic Goat
Routed: md

08/04/16
form: 3 pages

Please type or use black ink and print clearly.

Veterinarian or Case Coordinator: Name: Highland		First Name: Maggie	
Clinic: ADRU-ARS-USDA			
Street address: ADBF 3033		Mailing Address or PO Box:	
City: Pullman	State: WA	Zip: 99164	
Phone: 509-335-6327	Fax: 509-335-8328	E-mail: mah@vetmed.wsu.edu	
Owner: Last Name first: same as above		Guardian Name: (if owner is under 18)	
Farm Name:		First Time Submitter? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Street address:		Mailing Address or PO Box:	
City:	State:	Zip:	
Phone:	Fax:	E-mail:	

Billing: Owner Clinic 3rd Party (preapproval required) Please note: WADDL policy is to bill the clinic if provided, unless prepaid.

Reporting Preference: Mail Fax Web access - register on web site at <http://waddl.vetmed.wsu.edu>

Please fill out completely as possible:

Specimen(s) Submitted:		Date Collected: July 2016	
nasal swabs		Date Shipped: n/a	
<small>(Please use WADDL Animal ID Sheet for multiple animals.)</small>			
<input type="checkbox"/> Necropsy	<input type="checkbox"/> Virology	<input type="checkbox"/> Bacteriology	<input type="checkbox"/> IHC
<input type="checkbox"/> Histopathology	<input type="checkbox"/> Serology	<input type="checkbox"/> Mycoplasma culture	<input checked="" type="checkbox"/> PCR
<input type="checkbox"/> Toxicology	<input type="checkbox"/> Fungal Culture	<input type="checkbox"/> Parasitology	<input type="checkbox"/> Other:
<small>Note: WADDL reserves the right to modify the tests requested for more efficient case work-up and / or to send specimens to outside laboratories to perform testing not done at WADDL.</small>			
Animal ID (name/tag#)	Species	Breed	Age
see multiple animal form	domestic goats	multiple	multiple
Sex	Animal Weight		
Location of Lesion	No. in group	No. Dead	No. Sick
N/A		N/A	N/A
No. on Premises	Duration of Problem		
	N/A		

* Was animal euthanized? If so, what method? N/A

Additional History: Vaccinations, signs, stress factors, treatments, post mortem findings, pertinent feed or feed additives, clinical lab results, previous WADDL Case Numbers. (Attach additional sheets as necessary.)

M. ovipneumoniae qPCR on each sample
Please save remaining DNA isolations and call Maggie for pick up or may request further testing (sequencing) be performed by WADDL, depending on the results of qPCR analysis.

Please bill to ADRU-ARS-USDA account #RSA 2540-1080

WADDL is an official brucellosis testing laboratory. All serology for brucellosis, including abortion screens, requires identification of animals, date of sample collection, and signature of an accredited veterinarian attesting to the following statement:

"I certify that the specimens submitted with this form were collected by me from the animal(s) described on the date indicated."

Veterinarian's, Clinician's or Owner's Signature: *Maggie Highland* Condition(s) Suspected: *N/A screening study*

IDENTIFICATION SHEET FOR MULTIPLE ANIMALS

(To accompany WADDL Accession form, if needed)

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 College of Veterinary Medicine, Washington State University
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 Pullman, WA. 99164-7034 Pullman, WA. 99164-7034
 Phone: (509) 335-9696 FAX: (509) 335-7424
 E-Mail: waddl@vetmed.wsu.edu
 Web Site: http://waddl.vetmed.wsu.edu

2016 - 10050
 Ret Vet: Highland, Margaret
 Owner: USDA - ARS - ADRU
 Breed: Domestic Goat
 Routing: md

08/04/16

Owner: Highland, Maggie

Veterinarian: Highland, Maggie

TEST(S) REQUESTED: Movi qPCR

Tube	Animal # or Name	Tube	Animal # or Name	Tube	Animal # or Name	Tube	Animal # or Name
1	8_A	26	5_O	51	4_B	76	1_E
2	8_B	27	5_P	52	4_C	77	1_F
3	4_A	28	2_A	53	4_D	78	1_G
4	4_B	29	2_B	54	1_A	79	1_A
5	4_C	30	2_C	55	1_B	80	1_B
6	4_D	31	2_D	56	1_A	81	1_C
7	4_E	32	6_A	57	1_B	82	1_D
8	4_F	33	1_A	58	1_C	83	1_E
9	4_G	34	2_B	59	1_D	84	1_F
10	1_A	35	2_C	60	6_A	85	1_G
11	1_B	36	2_A	61	6_B	86	5_A
12	5_A	37	2_B	62	6_C	87	5_B
13	5_B	38	2_C	63	2_A	88	5_C
14	5_C	39	2_D	64	2_B	89	5_D
15	5_D	40	25_A	65	2_C	90	5_E
16	5_E	41	25_B	66	2_D	91	5_F
17	5_F	42	25_C	67	2_E	92	5_G
18	5_G	43	25_D	68	2_F	93	5_H
19	5_H	44	25_E	69	2_G	94	5_I
20	5_I	45	1_A	70	2_H	95	5_J
21	5_J	46	1_B	71	2_I	96	5_K
22	5_K	47	1_C	72	1_A	97	5_L
23	5_L	48	1_D	73	1_B	98	5_M
24	5_M	49	1_E	74	1_C	99	5_N
25	5_N	50	4_A	75	1_D	100*	5_O

* For over 100 samples, please copy this form and continue numbering.

IDENTIFICATION SHEET FOR MULTIPLE ANIMALS

(To accompany WADDL Accession form, if needed)

Washington Animal Disease Diagnostic Laboratory
 College of Veterinary Medicine, Washington State University
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 Web Site: http://waddl.vetmed.wsu.edu
 Shipping address: Bustad Hall, Rm.155-N Pullman, WA. 99164-7034
 FAX: (509) 335-7424

2016-10050
 Ref Vet: Highland, Margaret
 Owner: USDA-ARS-ADRU
 Breed: Domestic Goat
 Routing: md

08/04/16

Owner: Highland, Maggie

Veterinarian: Highland, Maggie

TEST(S) REQUESTED: Movi qPCR

Tube	Animal # or Name	Tube	Animal # or Name	Tube	Animal # or Name	Tube	Animal # or Name
101	5_P	126	1_E	51		76	
102	5_Q	127	7_A	52		77	
103	5_R	128	7_B	53		78	
104	5_S	129	7_C	54		79	
105	5_T	130	7_D	55		80	
106	5_U	131	2_A	56		81	
107	5_V	132	2_B	57		82	
108	5_W	133	2_C	58		83	
109	5_X	34		59		84	
110	5_Y	35		60		85	
111	3_A	36		61		86	
112	3_B	37		62		87	
113	1_A	38		63		88	
114	1_B	39		64		89	
115	1_C	40		65		90	
116	1_D	41		66		91	
117	1_E	42		67		92	
118	1_F	43		68		93	
119	1_G	44		69		94	
120	5_A	45		70		95	
121	5_B	46		71		96	
122	1_A	47		72		97	
123	1_B	48		73		98	
124	1_C	49		74		99	
125	1_D	50		75		100*	

* For over 100 samples, please copy this form and continue numbering.

Washington Animal Disease Diagnostic Lab

P.O. Box 647034
Pullman, WA 99164-7034
Telephone : (509) 335-9696
Fax : (509) 335-7424

Dr. Margaret Highland
USDA-ARS-ADRU
WSU - 3003 ADBF

Case#: 2016-10050
Report Date: 08/19/16

Pullman, WA 99164-6630

Submittal Date: 08/04/16
Owner: USDA-ARS-ADRU

Species: Domestic Goat

Age:
Sex:

Final Report:

Molecular Diagnostics- Reported on 08/19/16 Authorized by Daniel Bradway, Lab Manager

PCR-Mycoplasma ovipneumoniae SOP: 501.40RT.2016.07.18

Animal	Specimen	Result
8.A	Nasal swab	Not detected
8.B	Nasal swab	Not detected
4.A	Nasal swab	Indeterminate
4.B	Nasal swab	Not detected
4.C	Nasal swab	Indeterminate
4.D	Nasal swab	Indeterminate
4.E	Nasal swab	Not detected
4.F	Nasal swab	Indeterminate
4.G	Nasal swab	Not detected
1.A	Nasal swab	Not detected
1.B	Nasal swab	Not detected
5.A	Nasal swab	Not detected
5.B	Nasal swab	Not detected
5.C	Nasal swab	Not detected
5.D	Nasal swab	Not detected
5.E	Nasal swab	Not detected
5.F	Nasal swab	Not detected
5.G	Nasal swab	Not detected
5.H	Nasal swab	Not detected
5.I	Nasal swab	Indeterminate
5.J	Nasal swab	Not detected
5.K	Nasal swab	Not detected
5.L	Nasal swab	Not detected
5.M	Nasal swab	Not detected
5.N	Nasal swab	Indeterminate
5.O	Nasal swab	Not detected
5.P	Nasal swab	Not detected
2.A	Nasal swab	Not detected

Washington Animal Disease Diagnostic Lab

PCR-Mycoplasma ovipneumoniae SOP: 501.40RT.2016.07.18

Animal	Specimen	Result
[REDACTED] 2.B	Nasal swab	Not detected
[REDACTED] 2.C	Nasal swab	Not detected
[REDACTED] 2.D	Nasal swab	Not detected
[REDACTED] 6.A	Nasal swab	Not detected
[REDACTED] 1.A	Nasal swab	Not detected
[REDACTED] 2.B	Nasal swab	Not detected
[REDACTED] 2.C	Nasal swab	Not detected
[REDACTED] 2.A	Nasal swab	Not detected
[REDACTED] 2.B	Nasal swab	Not detected
[REDACTED] 2.C	Nasal swab	Not detected
[REDACTED] 2.D	Nasal swab	Not detected
[REDACTED] 25.A	Nasal swab	Not detected
[REDACTED] 25.B	Nasal swab	Not detected
[REDACTED] 25.C	Nasal swab	Not detected
[REDACTED] 25.D	Nasal swab	Not detected
[REDACTED] 25.E	Nasal swab	Not detected
[REDACTED] 1.A	Nasal swab	Not detected
[REDACTED] 1.B	Nasal swab	Not detected
[REDACTED] 1.C	Nasal swab	Not detected
[REDACTED] 1.D	Nasal swab	Not detected
[REDACTED] 1.E	Nasal swab	Not detected
[REDACTED] 4.A	Nasal swab	Not detected
[REDACTED] 4.B	Nasal swab	Not detected
[REDACTED] 4.C	Nasal swab	Not detected
[REDACTED] 4.D	Nasal swab	Not detected
[REDACTED] 1.1.A	Nasal swab	Not detected
[REDACTED] 1.1.B	Nasal swab	Not detected
[REDACTED] 1.1.A	Nasal swab	Not detected
[REDACTED] 1.1.B	Nasal swab	Not detected
[REDACTED] 1.1.C	Nasal swab	Not detected
[REDACTED] 1.1.D	Nasal swab	Not detected
[REDACTED] 6.A	Nasal swab	Not detected
[REDACTED] 6.B	Nasal swab	Not detected
[REDACTED] 6.C	Nasal swab	Not detected
[REDACTED] 2.A	Nasal swab	Not detected
[REDACTED] 2.B	Nasal swab	Not detected
[REDACTED] 2.C	Nasal swab	Not detected
[REDACTED] 2.D	Nasal swab	Not detected
[REDACTED] 2.E	Nasal swab	Not detected
[REDACTED] 2.F	Nasal swab	Not detected
[REDACTED] 2.G	Nasal swab	Not detected
[REDACTED] 2.H	Nasal swab	Indeterminate
[REDACTED] 2.I	Nasal swab	Not detected
[REDACTED] Y.1.A	Nasal swab	Not detected
[REDACTED] Y.1.B	Nasal swab	Not detected
[REDACTED] Y.1.C	Nasal swab	Not detected
[REDACTED] Y.1.D	Nasal swab	Not detected
[REDACTED] 1.E	Nasal swab	Not detected
[REDACTED] 1.F	Nasal swab	Not detected
[REDACTED] 1.G	Nasal swab	Not detected
[REDACTED] 1.A	Nasal swab	Not detected
[REDACTED] 1.B	Nasal swab	Not detected

Washington Animal Disease Diagnostic Lab

PCR-Mycoplasma ovipneumoniae SOP: 501.40RT.2016.07.18

Animal	Specimen	Result
1.C	Nasal swab	Not detected
1.D	Nasal swab	Not detected
1.E	Nasal swab	Not detected
1.F	Nasal swab	Not detected
1.G	Nasal swab	Not detected
5.A	Nasal swab	Not detected
5.B	Nasal swab	Not detected
5.C	Nasal swab	Not detected
5.D	Nasal swab	Not detected
5.E	Nasal swab	Not detected
5.F	Nasal swab	Not detected
5.G	Nasal swab	Not detected
5.H	Nasal swab	Not detected
5.I	Nasal swab	Not detected
5.J	Nasal swab	Not detected
5.K	Nasal swab	Not detected
5.L	Nasal swab	Not detected
5.M	Nasal swab	Not detected
5.N	Nasal swab	Not detected
5.O	Nasal swab	Not detected
5.P	Nasal swab	Not detected
5.Q	Nasal swab	Not detected
5.R	Nasal swab	Not detected
5.S	Nasal swab	Not detected
5.T	Nasal swab	Not detected
5.U	Nasal swab	Not detected
5.V	Nasal swab	Not detected
5.W	Nasal swab	Not detected
5.X	Nasal swab	Not detected
5.Y	Nasal swab	Not detected
3.A	Nasal swab	Not detected
3.B	Nasal swab	Not detected
1.A	Nasal swab	Not detected
1.B	Nasal swab	Not detected
1.C	Nasal swab	Not detected
1.D	Nasal swab	Not detected
1.E	Nasal swab	Not detected
1.F	Nasal swab	Not detected
1.G	Nasal swab	Not detected
5.A	Nasal swab	Not detected
5.B	Nasal swab	Not detected
1.A	Nasal swab	Not detected
1.B	Nasal swab	Not detected
1.C	Nasal swab	Not detected
1.D	Nasal swab	Not detected
1.E	Nasal swab	Not detected
7.A	Nasal swab	Not detected
7.B	Nasal swab	Not detected
7.C	Nasal swab	Not detected
7.D	Nasal swab	Not detected
2.A	Nasal swab	Not detected
2.B	Nasal swab	Not detected

Washington Animal Disease Diagnostic Lab

PCR-Mycoplasma ovipneumoniae SOP: 501.40RT.2016.07.18

Animal	Specimen	Result
2-C	Nasal swab	Not detected
1.H	Nasal swab	Not detected

PCR-Mycoplasma ovipneumoniae test comment: This assay detects only Mycoplasma ovipneumoniae. Culture is available at WADDL to detect other species of Mycoplasma if desired. Fees for culture are available on our website. Please contact the lab if Mycoplasma culture or other testing is desired.

Quantity/Description/Routing of Samples

133 nasal swabs
- dropped off by
Maggie Highland

2016 - 10050
Ref Vet: Highland, Margaret
Owner: USDA - ARS - ADRI
Breed: Domestic Goat
Routed: md

Sample Condition:	<input type="checkbox"/> Room Temp.	<input type="checkbox"/> On ice	<input checked="" type="checkbox"/> Frozen	<input type="checkbox"/> Fixed	Contents match forms: <input type="checkbox"/> Yes <input type="checkbox"/> No Explain below:	Opened by: <i>MA</i>
	Samples Received Via:		<input type="checkbox"/> US Mail	<input type="checkbox"/> FedEx		
	<input type="checkbox"/> UPS	<input type="checkbox"/> FedEx-R	<input type="checkbox"/> Other:			

Comments for Case Tracking:



08/04/16
page 1 of 1

Sample Label

MA

ACCESSION FORM FOR GENERAL DIAGNOSTICS
Washington Animal Disease Diagnostic Laboratory

College of Veterinary Medicine, Washington State University

Web Site: <http://waddl.vetmed.wsu.edu>

US Postal Service mailing address:
 PO Box 647034
 Pullman, WA. 99164-7034

UPS, FedEx or Courier shipping address:
 Bustad Hall, Rm.155-N
 Pullman, WA. 99164-7034

Phone: (509) 335-9696
 FAX: (509) 335 7424
 E-Mail: waddl@vetmed.wsu.edu

2016 - 12311
 Ref Vet: Highland, Margaret
 Owner: USDA - ARS - ADRU
 Breed: Domestic Goat
 Routed: md

09/21/16
 form 2 pages

Please type or use black ink and print clearly.

Veterinarian or Case Coordinator: Name: Highland		First Name: Maggie	
Clinic: ADRU-ARS-USDA			
Street address: ADBF 3033		Mailing Address or PO Box:	
City: Pullman	State: WA	Zip: 99164	
Phone: 509-335-6327	Fax: 509-335-8328	E-mail: mah@vetmed.wsu.edu	
Owner: Last Name first: same as above		Guardian Name: (if owner is under 18)	
Farm Name:		First Time Submitter? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Street address:		Mailing Address or PO Box:	
City:	State:	Zip:	
Phone:	Fax:	E-mail:	

Billing: Owner Clinic 3rd Party (preapproval required) Please note: WADDL policy is to bill the clinic if provided, unless prepaid.
Reporting Preference: Mail Fax Web access - register on web site at <http://waddl.vetmed.wsu.edu>

Please fill out completely as possible:

Specimen(s) Submitted:		Date Collected: Aug-Sept 2016	
(Please use WADDL Animal ID Sheet for multiple animals.) nasal swabs-frozen (-20C)		Date Shipped: n/a	
Tests Requested:	<input type="checkbox"/> Necropsy	<input type="checkbox"/> Virology	<input type="checkbox"/> Bacteriology
	<input type="checkbox"/> Histopathology	<input type="checkbox"/> Serology	<input type="checkbox"/> Mycoplasma culture
	<input type="checkbox"/> Toxicology	<input type="checkbox"/> Fungal Culture	<input type="checkbox"/> Parasitology
			<input type="checkbox"/> IHC
			<input checked="" type="checkbox"/> PCR
			<input type="checkbox"/> Other: _____

Note: WADDL reserves the right to modify the tests requested for more efficient case work-up and / or to send specimens to outside laboratories to perform testing not done at WADDL.

Animal ID (name/tag#)	Species	Breed	Age	Sex	Animal Weight
see multiple animal form	domestic goats	multiple	multiple		

Location of Lesion	No. in group	No. Dead	No. Sick	No. on Premises	Duration of Problem
N/A		N/A	N/A		N/A

* Was animal euthanized? If so, what method? N/A

Additional History: Vaccinations, signs, stress factors, treatments, post mortem findings, pertinent feed or feed additives, clinical lab results, previous WADDL Case Numbers. (Attach additional sheets as necessary.)

M. ovipneumoniae qPCR on each sample
 Please save remaining DNA isolations and call Maggie for pick up or may request further testing (sequencing) be performed by WADDL, depending on the results of qPCR analysis.

Please bill to ADRU-ARS-USDA account #RSA 2540-1094

WADDL is an official brucellosis testing laboratory. All serology for brucellosis, including abortion screens, requires identification of animals, date of sample collection, and signature of an accredited veterinarian attesting to the following statement:

"I certify that the specimens submitted with this form were collected by me from the animal(s) described on the date indicated."

Veterinarian's, Clinician's or Owner's Signature:	Condition(s) Suspected:
---	-------------------------

IDENTIFICATION SHEET FOR MULTIPLE ANIMALS

(To accompany WADDL Accession form, if needed)

Washington Animal Disease Diagnostic Laboratory
 College of Veterinary Medicine, Washington State University
 Mailing address: P.O. Box 647034
 Pullman, WA. 99164-7034
 Phone: (509) 335-9696
 E-Mail: waddl@vetmed.wsu.edu
 Web Site: http://waddl.vetmed.wsu.edu

Shipping address:
 Bustad Hall, Rm. 155-N
 Pullman, WA. 99164-7034
 FAX: (509) 335-7424

2016 – 12311

09/21/16

Ref Vet: Highland, Margaret
 Owner: USDA – ARS – ADRU
 Breed: Domestic Goat
 Routing: md

Owner: Highland, Maggie

Veterinarian: Highland, Maggie

TEST(S) REQUESTED: Movi qPCR

Tube	Animal # or Name	Tube	Animal # or Name	Tube	Animal # or Name	Tube	Animal # or Name
1	2_A	26	2_F	51	4_B (3)	76	1_J (2)
2	2_B	27	2_G	52	4_C (3)	77	1_L (2)
3	2_C	28	2_H	53	4_D (3)	78	1_N (2)
4	2_D	29	2_I	54	4_E (3)	79	1_O (2)
5	9_A	30	2_J	55	4_F (3)	80	1_P (2)
6	9_B	31	3_A	56	4_G (3)	81	1_Q (2)
7	9_C	32	3_B	57	4_H (3)	82	1_R (2)
8	9_D	33	3_C	58	4_I (3)	83	1_S (2)
9	9_E	34	4_A	59	4_J (3)	84	1_T (2)
10	5_A	35	4_B	60	4_K (3)	85	1_U (2)
11	5_B	36	4_C	61	4_L (3)	86	1_V (2)
12	5_C	37	4_D	62	4_M (3)	87	1_W (2)
13	5_D	38	4_E	63	4_N (3)	88	1_X (2)
14	5_E	39	3_A	64	4_O (3)	89	1_Y (2)
15	5_F	40	3_B	65	4_S (3)	90	1_HH (2)
16	5_G	41	3_C	66	9_F (2)	91	1_II (2)
17	5_H	42	3_D	67	9_G (2)	92	1_KK (2)
18	5_I	43	3_E	68	17_J (2)	93	1_LL (2)
19	5_J	44	3_F	69	17_K (2)	94	1_MM (2)
20	5_K	45	3_G	70	1_A (2)	95	1_NN (2)
21	2_A	46	3_H	71	1_B (2)	96	1_SS (2)
22	2_B	47	A_3_I	72	1_D (2)	97	1_ZZ (2)
23	2_C	48	26_A	73	1_E (2)	98	1_BC (2)
24	2_D	49	26_B	74	1_F (2)	99	2_H (4)
25	2_E	50	4_A (3)	75	1_G (2)	100 *	

* For over 100 samples, please copy this form and continue numbering.

Washington Animal Disease Diagnostic Lab

P.O. Box 647034
Pullman, WA 99164-7034
Telephone : (509) 335-9696
Fax : (509) 335-7424

Case#: 2016-12311
Report Date: 10/05/16

Dr. Margaret Highland
USDA-ARS-ADRU
WSU - 3003 ADBF

Pullman, WA 99164-6630

Submittal Date: 09/21/16
Owner: USDA-ARS-ADRU

Species: Domestic Goat

Age:
Sex:

Final Report:

Molecular Diagnostics- Reported on 10/05/16 Authorized by Daniel Bradway, Lab Manager

PCR-Mycoplasma ovipneumoniae SOP: 501.40RT.2016.07.18

Animal	Specimen	Result
[REDACTED] 2.A	Nasal swab	Not detected
[REDACTED] 2.B	Nasal swab	Not detected
[REDACTED] 2.C	Nasal swab	Not detected
[REDACTED] 2.D	Nasal swab	Not detected
[REDACTED] 9.A	Nasal swab	Not detected
[REDACTED] 9.B	Nasal swab	Not detected
[REDACTED] 9.C	Nasal swab	Not detected
[REDACTED] 9.D	Nasal swab	Not detected
[REDACTED] 9.E	Nasal swab	Not detected
[REDACTED] 5.A	Nasal swab	Not detected
[REDACTED] 5.B	Nasal swab	Not detected
[REDACTED] 5.C	Nasal swab	Not detected
[REDACTED] 5.D	Nasal swab	Not detected
[REDACTED] 5.E	Nasal swab	Not detected
[REDACTED] 5.F	Nasal swab	Not detected
[REDACTED] 5.G	Nasal swab	Not detected
[REDACTED] 5.H	Nasal swab	Not detected
[REDACTED] 5.I	Nasal swab	Not detected
[REDACTED] 5.J	Nasal swab	Not detected
[REDACTED] 5.K	Nasal swab	Not detected
[REDACTED] 2.A	Nasal swab	Not detected
[REDACTED] 2.B	Nasal swab	Not detected
[REDACTED] 2.C	Nasal swab	Not detected
[REDACTED] 2.D	Nasal swab	Not detected
[REDACTED] 2.E	Nasal swab	Not detected
[REDACTED] 2.F	Nasal swab	Not detected
[REDACTED] 2.G	Nasal swab	Not detected
[REDACTED] 2.H	Nasal swab	Not detected

Washington Animal Disease Diagnostic Lab

PCR-Mycoplasma ovipneumoniae SOP: 501.40RT.2016.07.18

Animal	Specimen	Result
2.I	Nasal swab	Not detected
2.J	Nasal swab	Not detected
3.A	Nasal swab	Not detected
3.B	Nasal swab	Not detected
3.C	Nasal swab	Not detected
4.A	Nasal swab	Not detected
4.B	Nasal swab	Not detected
4.C	Nasal swab	Not detected
4.D	Nasal swab	Not detected
4.E	Nasal swab	Not detected
3.A	Nasal swab	Not detected
3.B	Nasal swab	Not detected
3.C	Nasal swab	Indeterminate
3.D	Nasal swab	Indeterminate
3.E	Nasal swab	Not detected
3.F	Nasal swab	Indeterminate
3.G	Nasal swab	Not detected
3.H	Nasal swab	Not detected
3.I	Nasal swab	Not detected
26.A	Nasal swab	Not detected
26.B	Nasal swab	Not detected
4.A (3)	Nasal swab	Not detected
4.B (3)	Nasal swab	Not detected
4.C (3)	Nasal swab	Indeterminate
4.D (3)	Nasal swab	Indeterminate
4.E (3)	Nasal swab	Not detected
4.F (3)	Nasal swab	Not detected
4.G (3)	Nasal swab	Not detected
4.H (3)	Nasal swab	Not detected
4.I (3)	Nasal swab	Not detected
4.J (3)	Nasal swab	Indeterminate
4.K (3)	Nasal swab	Not detected
4.L (3)	Nasal swab	Indeterminate
4.M (3)	Nasal swab	Indeterminate
4.N (3)	Nasal swab	Not detected
4.O (3)	Nasal swab	Not detected
4.S (3)	Nasal swab	Indeterminate
9.F (2)	Nasal swab	Not detected
9.G (2)	Nasal swab	Not detected
17.J (2)	Nasal swab	Indeterminate
17.K (2)	Nasal swab	Not detected
11.A (2)	Nasal swab	Not detected
11.B (2)	Nasal swab	Not detected
11.D (2)	Nasal swab	Not detected
11.E (2)	Nasal swab	Not detected
11.F (2)	Nasal swab	Not detected
11.G (2)	Nasal swab	Not detected
11.J (2)	Nasal swab	Not detected
11.L (2)	Nasal swab	Not detected
11.N (2)	Nasal swab	Not detected
11.O (2)	Nasal swab	Not detected
11.P (2)	Nasal swab	Not detected

Washington Animal Disease Diagnostic Lab

PCR-Mycoplasma ovipneumoniae SOP: 501.40RT.2016.07.18

Animal	Specimen	Result
1-Q (2)	Nasal swab	Not detected
1-R (2)	Nasal swab	Not detected
1-S (2)	Nasal swab	Not detected
1-T (2)	Nasal swab	Not detected
1-U (2)	Nasal swab	Not detected
1-V (2)	Nasal swab	Indeterminate
1-W (2)	Nasal swab	Not detected
1-X (2)	Nasal swab	Not detected
1-Y (2)	Nasal swab	Not detected
1-HH (2)	Nasal swab	Indeterminate
1-II (2)	Nasal swab	Not detected
1-KK (2)	Nasal swab	Not detected
1-LL (2)	Nasal swab	Not detected
1-MM (2)	Nasal swab	Indeterminate
1-NN (2)	Nasal swab	Not detected
1-SS (2)	Nasal swab	Not detected
1-ZZ (2)	Nasal swab	Not detected
1-BC (2)	Nasal swab	Not detected
2-H (4)	Nasal swab	Not detected

PCR-Mycoplasma ovipneumoniae test comment: This assay detects only Mycoplasma ovipneumoniae. Culture is available at WADDL to detect other species of Mycoplasma if desired. Fees for culture are available on our website. Please contact the lab if Mycoplasma culture or other testing is desired.

Quantity/Description/Routing of Samples

99 nasal swabs -> MD
per MTH

by M. Highland
-> 250B

2016-12311
Ref Vet: Highland, Margaret
Owner: USDA - ARS - ADPRU
Breed: Domestic Goat
Routed: md

Sample Condition:	<input type="checkbox"/> Room Temp.	<input type="checkbox"/> On ice	<input checked="" type="checkbox"/> Frozen	<input type="checkbox"/> Fixed	Contents match forms: <input type="checkbox"/> Yes <input type="checkbox"/> No Explain below:	Opened by: <i>not</i>
	Samples Received Via:		<input checked="" type="checkbox"/> Drop off			
	<input type="checkbox"/> US Mail	<input type="checkbox"/> FedEx	<input type="checkbox"/> Other:			
	<input type="checkbox"/> UPS	<input type="checkbox"/> FedEx-R				

Comments for Case Tracking:

MD to verify



09/21/16
pages: 1 page

Sample Label <i>[Signature]</i>
